

NFN Pricing Web REST API

Container message description and Specification

Update Date: January 20, 2022

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Upcoming changes

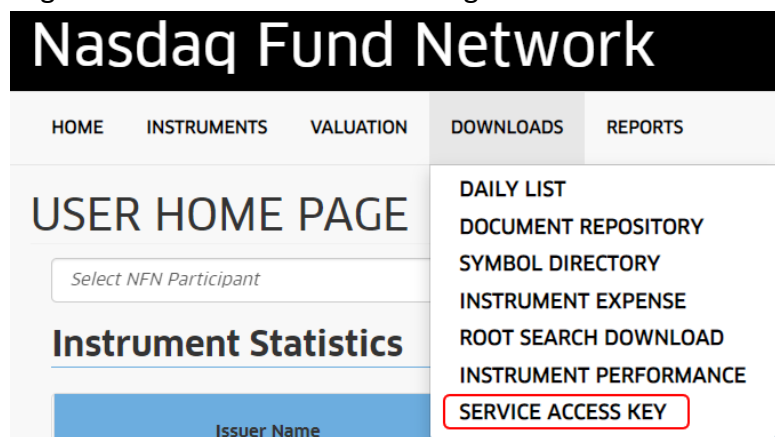
As of **November 22, 2021**, Nasdaq will allow NFN – Nasdaq Fund Network users to use JWT bearer token to upload valuation data files in Web Pricing REST API.

In addition, NFN adopted Two Factor Authentication to access the NFN Web Service.

Follow these steps to generate JWT bearer token:

First, users need to generate permanent access key which will be used to generate temporary JWT bearer token later. This access key will expire after one year.

- Login to NFN Web Service and navigate to Download → Service Access Key page <https://nfn.nasdaq.com/ServiceAccess.aspx>



- Click Generate Service Access Key button as shown in the following screenshot
- System will generate a Current Active Key as shown below
- Copy the Current Active Key

SERVICE ACCESS KEY

Select NFN Participant	▼
User Name	zhomon01
Current Active Key	neJ8c1APIkDs3D/OjKnkpiuJBjhCo4peNshQL2lz8NL955+QsJvwpMyykPIAUqRiDs9SpQcCjGJVvEVPJXPVVQ==
Expiration Date	11/9/2022
By pressing this button you will invalidate current Access Key.	
By pressing this button you will delete Access Key for selected user.	
<input type="button" value="Generate Service Access Key"/>	
<input type="button" value="Delete Access Key"/>	

Second, to generate temporary JWT token:

- End point URL: <https://nfn.nasdaq.com/servicecall/tempession>
- Http method: POST
- Content-Type should be "application/x-www-form-urlencoded"
- Form field: username, password, accesskey
- Enter username, password and paste the accesskey copied from the NFN Web Service in step one.
- Expected output: JSON {"data": "[JWT value]"}
Sample output

```
{"data": "eyJhbGciOiJodHRwOi8vd3d3LnczLm9yZy8yMDAxLzA0L3htbGRzaWctbW9yZSNobWFjLXNoYTl1NiIsInR5cCI6IkpXVCJ9.eyJsb2FkljoiZTI2SIVldHNMNlBxbC9veGMvaHp6WDhCMWVNVm8ydGRaVFA5YkNlc1NRS0pFbnpyWExJanVBK282RE9XR085ciJ9.L9ZjysPJgB9tiYtuDAcUdFTSxPIITpUTMnc_QBovH-M"}
```
- Temporary token will expire in 30 minutes of inactivity

Past changes

Changes as of **November 22, 2021**, NFN updated the End point URL to: <https://nfn.nasdaq.com/servicecall/price>

New service doesn't require username and password as a form field and doesn't require client certificate.

- End point URL: <https://nfn.nasdaq.com/servicecall/price>
- Http method: POST
- Content-Type should be “application/x-www-form-urlencoded”
- Form field contains ValuationData
- ValuationData is JSON array of ValuationData objects. See specification below
- New service requires Authorization http header with JWT bearer token

JWT token can be obtained by calling <https://nfn.nasdaq.com/servicecall/tempession> and providing username and password and access key as a form field.

Overview

As of **November 5, 2018**, Nasdaq will allow NFN pricing agents to upload valuation data files in Web Pricing API. This document provides details on how to create the Web Pricing API container messages. User must have a valid NFN security certificate, NFN user ID and password from Nasdaq to submit web pricing API messages for processing.

To get NFN Web Service access rights, a firm must submit a [NFN Firm Set-Up / Logon Request Form](#) to Nasdaq. Once the form is processed, Nasdaq Trading Services will contact the firm's users via email with instructions on how to download the necessary security certificate for the NFN Web Service. Trading Services will also provide the User ID and link to set your password.

1. Service specification

1.1 Incoming message

Current process

- End point URL: <https://nfn.nasdaq.com/api/valuation>
- Http method: POST
- Content-Type should be "application/x-www-form-urlencoded"
- NFN certificate should be attached to every request
- Form field contains username, password, and ValuationData
- ValuationData is JSON array of ValuationData objects. See specification below

New process

- End point URL: <https://nfn.nasdaq.com/servicecall/price>
- Http method: POST
- Content-Type should be "application/x-www-form-urlencoded"
- Form field contains ValuationData
- ValuationData is JSON array of ValuationData objects. See specification below

- New service requires Authorization http header with JWT bearer token

JWT token can be obtained by calling <https://nfn.nasdaq.com/servicecall/tempession> and providing username and password and access key as a form field.

1.2 Response

Response is JSON array of valuation objects containing errors messages. Error messages can be found in Appendix B of this specification.

2. Incoming valuation messages

2.1 ValuationData

FieldName	DateType	Description
MPID	STRING	Pricing agent Market Participant ID (MPID). Optional.
UserRequestId	STRING	User provided request identifier. Pass through value, not processed by Nasdaq.
FormatVersion	STRING	Current fixed string message formats. All messages containing in valuation objects should be the same formats specific in this field.
ValuationObjects	Array	Array of ValuationObjects

2.2 ValuationObject

FieldName	DateType	Description
LineNumber	Integer	Sequential integer
ValuationMessage	STRING	Valuation message fixed string confirming current valuation message specification

Sample incoming valuation message:

```
[
  {FormatVersion:"0050",
    MPID:"TEST",
    UserRequestId:"ABC123"
    ValuationObjects:
      [
        {LineNumber:1,
          "ValuationMessage": "MFUZZZX      MFR10.0    10.00    NA    NA    NA    NA    NA    NA
          NA 07162018USD000000000 "
        },
        {LineNumber:2,
          "ValuationMessage": "MFU....."
        }
      ]
    }
  ]
```

3. Outgoing response messages

3.1 Valuation Data

FieldName	DateType	Description
MPID	STRING	Pricing agent Market Participant ID (MPID)
UserRequestId	STRING	User provided request identifier. Pass through value, not processed by Nasdaq
FormatVersion	STRING	Current fixed string message formats. Valuation data will contacts respond object array, see specification below
ValuationObjects	Array	Array of ValuationObjects which were rejected by the system
AcceptedRecords	Integer	Number of records accepted
RejectedRecords	Integer	Number of records rejected
SubmittedRecords	Integer	Total number of records submitted
ValuationErrors	Array	List of processing errors associated with rejected messages

3.2 Valuation Object

FieldName	DateType	Description
LineNumber	Integer	Sequential integer
ValuationMessage	STRING	Valuation message fixed string confirming current valuation message specification

3.3 Valuation Error

FieldName	DateType	Description
DataError	Boolean	Indicates type of error, data error or format error
LineNumber	Integer	Field is used to associate valuation error with valuation object
ErrorCode	Integer	Indicates error code if available
LegacyErrorCode	Integer	Indicates legacy error code
RegExExpression	STRING	Might be provided to help troubleshoot format errors
Offset	Integer	Indicates location of the field containing the error in the incoming message
Size	Integer	Indicates size of the field containing the error in the incoming message
PropertyName	STRING	Indicates name of the field containing the error in the incoming message
Message	STRING	Provides error message
PassedValue	STRING	Value which was processed by the system and obtained from incoming valuation message

Sample outgoing valuation message:

Outgoing Valuation Data object RAW JSON response, when Valuation Object is rejected, messages will be returned to user with corresponding error objects:

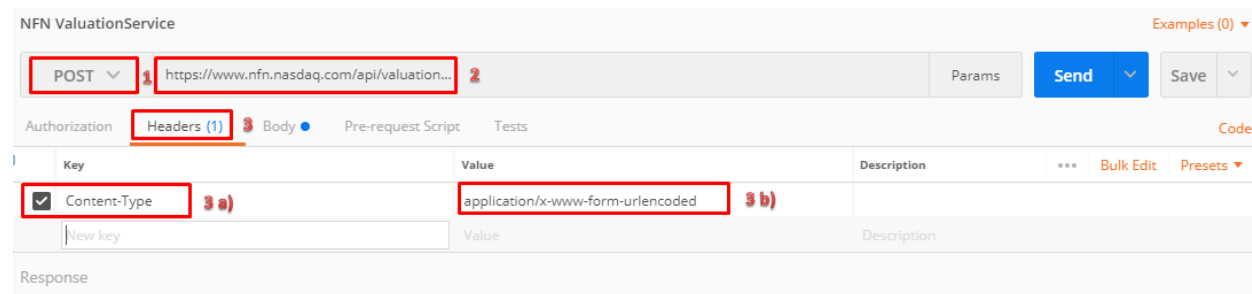
```
"{"MPID":"TEST ",
"FormatVersion":"0050",
"AcceptedRecords":1,
"RejectedRecords":1,
"SubmittedRecords":2,
"ValuationObjects":
  [{"LineNumber":2,"ValuationMessage":"MFU....."}]
"ValuationErrors":
  [
    {
      "DataError":false,
      "LineNumber":2,
      "ErrorCode":0,
      "LegacyErrorCode":0,
      "PropertyName":null,
      "RegexExpression":null,
      "Offset":0,"Size":0,
      "PassedValue":null,
      "Message":"Format Error: Message has invalid Length must be 178 characters."}]}
```

Example of how it works (Current example)

Provided example is using Postman API Development Environment to demonstrate of functionality of the service:

Below are instructions based on Postman: <https://www.getpostman.com/>.

1. Select http method “POST”. Only “POST” will be accepted.
2. End point URL : <https://nfn.nasdaq.com/api/valuation>
3. Headers
 - a. Under Key field type in “**Content-Type**”
 - b. Under Value field type in “**application/x-www-form-urlencoded**”



4. Body
 - a. Type in **username** under Key field; enter your NFN logon ID under Value field.
 - b. Type in **password** under Key field; enter your NFN logon password under Value field.
 - c. Type in **ValuationData** under Key field; JSON ARRAY (See specification below).
5. Save the setting and valuation messages.
6. Send the messages.

NFN ValuationService Examples (0) ▾

POST https://www.nfn.nasdaq.com/api/valuation... Params Send Save

Authorization Headers (1) **Body** Pre-request Script Tests Code

form-data x-www-form-urlencoded raw binary

Key	Value	Description
<input checked="" type="checkbox"/> username	*****	4 a)
<input checked="" type="checkbox"/> password	*****	4 b)
<input checked="" type="checkbox"/> ValuationData	[{ FormatVersion:"0050", ValuationObjects: [{LineNumber:1, "ValuationMessage":"MFUZZZX MFR10.0 10.00 NA NA NA NA NA NA NA 07162018USD000000000 "}, {LineNumber:2, ValuationMessage:"MMFZZXXX NA 000001.000000 NA NA NA NA NA NA NA 07162018USD000000000 "}, {LineNumber:3, ValuationMessage:"DSTZZXX MM0.0001 NA NA NA 071620180716201807162018NA N07162018USD000000000 "}, {LineNumber:4, ValuationMessage:"DSTZZZX MF0.0001 NA NA NA 071620180716201807162018NA N07162018USD000000000 "}, {LineNumber:5, ValuationMessage:"DIVZZZX MFD0.001 NA NA NA NA NA NA NA 07162018071620180716201807162018N07162018USD000 000000 "}, {LineNumber:6, ValuationMessage:"DIVZZXX MMD0.001 NA NA NA NA NA NA NA 07162018071620180716201807162018N07162018USD000 000000 "}]]	4 c)

If the valuation messages were accepted successfully, API will return an empty string message.

If the valuation messages were rejected, API will return error messages. Refer to Appendix B for NFN Error Codes.

4. Message formats (these are the current formats; message formats will change without changing the container.)

4.1 Daily Valuation Message for Mutual Funds, Unit Investment Trusts (UITs), Annuities, Structured Products, Alternative Investment Products (AIPs), NextShares, Collective Investment Trust (CIT), Managed Accounts, Separate Accounts, Hedge Funds, and Demand Deposit Accounts (NFN 0050)

This message format should be used to report daily valuation data for all NFN instrument classes except money market funds. The file must contain one record for each instrument being updated. The records must be 178 characters long, in the following format:

Field	Offset	Length	Format	Description	Required ¹	Data Validation
Row Header	0	3	Alphanumeric	Defines inbound data format. "MFU" for mutual fund, UIT, annuity, structured products, alternative investment products, NextShares, Collective Investment trust, managed accounts, separate accounts, hedge fund, and demand deposit account updates.	Yes	Field level validations: <ul style="list-style-type: none"> Row Header not defined. Message does not match the Row Header value.
Symbol (pka Fund ID)	3	11	Alphanumeric	Defines the Nasdaq assigned ticker symbol for NFN instrument.	Yes	Field level validations: <ul style="list-style-type: none"> Symbol is not defined in system.

¹ Each row in the NFN batch file must be 178 bytes. Firms may not omit fields. If not required, firms may opt to space fill the field.

Field	Offset	Length	Format	Description	Required ¹	Data Validation
				Note: This field is being expanded to 11 bytes to accommodate for symbology changes as needed.		<ul style="list-style-type: none"> Symbol status is not set to active. Symbol not associated with the supported instrument types. Firm not entitled for Symbol. Symbol is associated with Money Market Fund.
Footnotes	14	10	Alphanumeric	Any footnotes applicable for the NFN instrument. The allowable values are:	<p>No, for normal conditions</p> <p>Yes, for ex-date adjustments</p>	<p>Field level validations:</p> <ul style="list-style-type: none"> Footnote codes not defined. Footnote codes are duplicated. Footnote code not defined for NFN instrument type.

Code	Definition	Instrument Type
D	Capital gains distribution*	All
F	Fund uses prior day prices to calculate NFN valuation values	All
H	Deferred sales charge	UIT
I	Repurchase offer period for interval funds	Mutual Fund
N	No load fund	Mutual Fund
O	Primary offering	UIT
P	12(b)1 fee	Mutual Fund
R	Redemption fee	Mutual Fund
S	Stock split or dividend adjustment *	All
W	NRO indicator	UIT
X	Cash dividend, special cash dividend or income distribution adjustment*	All
Y	Secondary offering	UIT

Field	Offset	Length	Format	Description	Required ¹	Data Validation																
				<table border="1"> <tr> <td>C</td> <td>Revaluation</td> <td>AIP and Structured Product</td> </tr> </table> <p><i>*Note: For codes D, S and X, firms must also enter a separate Dividend/Interest or Capital Distribution message.</i></p> <p>Please contact NFN Operations if you wish to request a new footnote code.</p>	C	Revaluation	AIP and Structured Product															
C	Revaluation	AIP and Structured Product																				
Instrument Type (pka Fund Type, MFQS Instrument Type)	24	2	Alphanumeric	<p>Indicates the type of NFN instrument being reported. Proposed values are:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>MF</td> <td>Mutual Fund²</td> </tr> <tr> <td>UT</td> <td>Unit Investment Trust</td> </tr> <tr> <td>AN</td> <td>Annuity</td> </tr> <tr> <td>SP</td> <td>Structured Product</td> </tr> <tr> <td>AP</td> <td>Alternative Investment Product³</td> </tr> <tr> <td>EM</td> <td>NextShares Exchange Traded Managed Fund</td> </tr> <tr> <td>CT</td> <td>Collective Investment Trust</td> </tr> </tbody> </table>	Code	Definition	MF	Mutual Fund ²	UT	Unit Investment Trust	AN	Annuity	SP	Structured Product	AP	Alternative Investment Product ³	EM	NextShares Exchange Traded Managed Fund	CT	Collective Investment Trust	Yes	<p>Field level validation:</p> <ul style="list-style-type: none"> Instrument Type value is not defined. Instrument Type value does not match the value in NFN registration service for Symbol.
Code	Definition																					
MF	Mutual Fund ²																					
UT	Unit Investment Trust																					
AN	Annuity																					
SP	Structured Product																					
AP	Alternative Investment Product ³																					
EM	NextShares Exchange Traded Managed Fund																					
CT	Collective Investment Trust																					

² Mutual Fund instrument type is used for Open-End Mutual Funds, Closed End Mutual Funds / ETFs, Interval Fund and Tender Offer Fund instruments.

³ Alternative Investment Product instrument type is used for Managed Future Fund, Fund of Hedge Fund, Non-Traded REIT, Non-Traditional Hedge Fund, Commodity Pool Fund and Private Equity Offering.

Field	Offset	Length	Format	Description	Required ¹	Data Validation								
				<table border="1"> <tr> <td>MA</td> <td>Managed Accounts</td> </tr> <tr> <td>SA</td> <td>Separate Accounts</td> </tr> <tr> <td>HF</td> <td>Hedge Fund</td> </tr> <tr> <td>DD</td> <td>Demand Deposit Account</td> </tr> </table>	MA	Managed Accounts	SA	Separate Accounts	HF	Hedge Fund	DD	Demand Deposit Account		
MA	Managed Accounts													
SA	Separate Accounts													
HF	Hedge Fund													
DD	Demand Deposit Account													
Reporting Type	26	1	Alphanumeric	<p>Indicates the reporting frequency for NFN instrument. Proposed values are:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>R</td> <td> Daily / End of Day reporting (Default) <i>Note: Firms may use the "R" code for funds that report on daily, weekly, bi-weekly, or quarterly basis.</i> </td> </tr> <tr> <td>I</td> <td> Intraday Update <i>Note: On the outbound NFN Data Service data feed, Nasdaq supports the "I" reporting type value on entries with the current trading date only. For prior entry dates, Nasdaq will treat "R" and "I" values in the same manner so vendors will only update the closing value.</i> </td> </tr> </tbody> </table>	Code	Definition	R	Daily / End of Day reporting (Default) <i>Note: Firms may use the "R" code for funds that report on daily, weekly, bi-weekly, or quarterly basis.</i>	I	Intraday Update <i>Note: On the outbound NFN Data Service data feed, Nasdaq supports the "I" reporting type value on entries with the current trading date only. For prior entry dates, Nasdaq will treat "R" and "I" values in the same manner so vendors will only update the closing value.</i>	Yes	Field level validations: <ul style="list-style-type: none"> Reporting Type value is not defined. 		
Code	Definition													
R	Daily / End of Day reporting (Default) <i>Note: Firms may use the "R" code for funds that report on daily, weekly, bi-weekly, or quarterly basis.</i>													
I	Intraday Update <i>Note: On the outbound NFN Data Service data feed, Nasdaq supports the "I" reporting type value on entries with the current trading date only. For prior entry dates, Nasdaq will treat "R" and "I" values in the same manner so vendors will only update the closing value.</i>													
NAV	27	13	\$\$\$\$\$.dddddd	Indicates the net asset value (NAV) for the NFN instrument. If unavailable, please submit "NA".	Yes	NAV price validations: <ul style="list-style-type: none"> System price validation 								

Field	Offset	Length	Format	Description	Required ¹	Data Validation
						<p>parameter for normal price reporting. If current NAV is more than X% higher or lower than prior NAV, firm should enter “#” is override field.</p> <ul style="list-style-type: none"> System price validation for ex-date dividends and distributions . If the current NAV is 100% higher or lower than prior NAV, firm should enter “#” in override field. Firm must also enter “D”, “S” or “X” in

Field	Offset	Length	Format	Description	Required ¹	Data Validation
						<p>the Footnotes field.</p> <ul style="list-style-type: none"> System price validation: NAV cannot be more than offer price. System price validation: NAV cannot be zero. If unavailable, enter "NA". <p>Instrument Type validation:</p> <ul style="list-style-type: none"> UITs must enter Redemption Price (rather than NAV). <p>Field level validations:</p> <ul style="list-style-type: none"> NAV format does not match specification.

Field	Offset	Length	Format	Description	Required ¹	Data Validation						
						*Note: Starting value for Managed Accounts (SMAs and UMAs) at inception is \$1000.						
NAV Override	40	1	Alphanumeric (with special characters)	<p>Indicates if the system should ignore % price validations associated with the NAV field. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> NAV Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Offer/Market Price	41	13	\$\$\$\$\$.dddddd	<p>Offer prices are typically reported by open end mutual funds, UITs and annuities. For these instruments, the price should reflect the price at which an investor can purchase shares.</p> <p>Market prices are typically reported by closed end funds and other exchange traded instruments. For these instruments, the price should reflect the closing price on the primary market.</p> <p>If unavailable, please submit "NA".</p>	Yes	<p>For Offer Price validations:</p> <ul style="list-style-type: none"> System price validation parameter for normal price reporting. If difference between NAV / Redemption Price and 						

Field	Offset	Length	Format	Description	Required ¹	Data Validation
						<p>offer / market price fields is greater than X%, firm should enter "#" in override field.</p> <ul style="list-style-type: none"> • System price validation parameter for normal price reporting. If Offer / Market price is more than X% higher or lower than prior offer price, firm should enter "#" in override field • System price validation for ex-date dividends and distributions : If the

Field	Offset	Length	Format	Description	Required ¹	Data Validation				
						<p>current offer price is 100% higher or lower than prior offer price, firm should enter “#” in override field. Firm must also enter “D”, “S” or “X” in the Footnotes field.</p> <p>Format level validations:</p> <ul style="list-style-type: none"> Offer / Market Price format does not match specification. 				
Offer / Market Price Override	54	1	Alphanumeric (with special characters)	<p>Indicates if the system should ignore % price validations associated with the offer price and market price field. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> </tbody> </table>	Code	Definition	#	Override On	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Offer / Market Price Override
Code	Definition									
#	Override On									

Field	Offset	Length	Format	Description	Required ¹	Data Validation		
				<table border="1"> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </table>	<space>	Override Off (Default)		value is not defined.
<space>	Override Off (Default)							
Redemption Price (UITs only)	55	13	\$\$\$\$\$.dddd	<p>Indicates the amount that an investor would receive if he were to redeem UIT shares. If unavailable, please submit "NA".</p> <p>If space filled, Nasdaq will populate the field as "NA".</p>	Yes, for UITs only	<p>Price level validations:</p> <ul style="list-style-type: none"> System price validation parameter for normal price reporting. If current Redemption Price is more than X% higher or lower than prior Redemption Price, firm should enter "#" is override field. System price validation for ex-date dividends and distributions . If the current 		

Field	Offset	Length	Format	Description	Required ¹	Data Validation
						<p>Redemption Price is 100% higher or lower than prior Redemption Price, firm should enter “#” in override field. Firm must also enter “D”, “S” or “X” in the Footnotes field.</p> <ul style="list-style-type: none"> • System price validation: NAV cannot be more than offer price. • System price validation: Redemption Price cannot be zero. If unavailable, enter “NA”.

Field	Offset	Length	Format	Description	Required ¹	Data Validation						
						Instrument Type validation: <ul style="list-style-type: none"> Mutual funds, annuities, structured products and AIPs should enter NAV (rather than Redemption Price). Field level validations: <ul style="list-style-type: none"> Redemption Price format does not match specification. 						
Redemption Price Override (UITs only)	68	1	Alphanumeric (with special characters)	Indicates if the system should ignore % price validations associated with the redemption price field. Allowable values: <table border="1" data-bbox="856 1154 1484 1336"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	Field level validations: <ul style="list-style-type: none"> Redemption Price Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											

Field	Offset	Length	Format	Description	Required ¹	Data Validation
Wrap Price	69	13	\$\$\$\$\$.dddd	<p>The price paid to purchase units in a wrap account. If unavailable, please submit "NA".</p> <p>If space filled, Nasdaq will populate the field as "NA".</p>	Yes, for UITs only	<p>Field level validations:</p> <ul style="list-style-type: none"> Wrap price format does not match specification.
Total Net Assets	82	15	\$\$\$\$\$\$\$\$\$\$\$\$\$	<p>Indicates the total net assets (actual amount in <u>appropriate currency</u>) for instrument. If unavailable, please submit "NA".</p> <p>If space filled, Nasdaq will populate the field as "NA".</p>	No	<p>Total Net Asset validations:</p> <ul style="list-style-type: none"> If the Total Net Assets is less than \$ threshold parameter, firm should enter "#" in override field. Total Net Assets cannot be zero. <p>Field level validations:</p> <ul style="list-style-type: none"> Total Net Asset format does not match specification.

Field	Offset	Length	Format	Description	Required ¹	Data Validation						
Total Net Assets Override	97	1	Alphanumeric (with special characters)	<p>Indicates if the system should ignore system validations associated with the Total Net Asset field. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Total Net Assets Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Current Yield	98	9	\$\$\$\$.dddd	<p>The annual rate of return on investment.</p> <p>If unavailable, please submit "NA".</p> <p>If space filled, Nasdaq will populate the field as "NA".</p>	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Wrap price format does not match specification. 						
Current Yield Direction	107	1	Alphanumeric (with special characters)	<p>Indicates if the current yield is a positive or negative number.</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>- <dash></td> <td>Negative yield; Current yield is less than 0.00% so it should be displayed with negative sign.</td> </tr> <tr> <td><space></td> <td>Positive or zero yield (Default)</td> </tr> </tbody> </table>	Code	Definition	- <dash>	Negative yield; Current yield is less than 0.00% so it should be displayed with negative sign.	<space>	Positive or zero yield (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Yield direction value is not defined.
Code	Definition											
- <dash>	Negative yield; Current yield is less than 0.00% so it should be displayed with negative sign.											
<space>	Positive or zero yield (Default)											

Field	Offset	Length	Format	Description	Required ¹	Data Validation						
ELTR	108	9	\$\$\$\$.dddd	Estimated long term return (ELTR) or the yield over the life of the portfolio of a UIT or other NFN instrument. If unavailable, please submit "NA". If space filled, Nasdaq will populate the field as "NA".	No	Field level validations: <ul style="list-style-type: none"> ELTR format does not match specification. 						
ELTR Direction	117	1	Alphanumeric (with special characters)	Indicates if the ELTR value is a positive or negative number. <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>- <dash></td> <td>Negative yield; ELTR is less than 0.00% so it should be displayed with negative sign.</td> </tr> <tr> <td><space></td> <td>Positive or zero ELTR(Default)</td> </tr> </tbody> </table>	Code	Definition	- <dash>	Negative yield; ELTR is less than 0.00% so it should be displayed with negative sign.	<space>	Positive or zero ELTR(Default)	No	Field level validations: <ul style="list-style-type: none"> ELTR value is not defined.
Code	Definition											
- <dash>	Negative yield; ELTR is less than 0.00% so it should be displayed with negative sign.											
<space>	Positive or zero ELTR(Default)											
Accrued Interest	118	13	\$\$\$\$\$.dddddd	Interest accrued since the last interest payment was made. If unavailable, please submit "NA". If space filled, Nasdaq will populate the field as "NA".	No	Field level validations: <ul style="list-style-type: none"> Accrued Interest format does not match specification. 						
Daily Dividend Factor	131	9	\$\$\$.dddddd	Indicates the dividend factor if the fund or UIT declares a daily dividend. Please note that firms should make dividend adjustments for weekends and holidays as necessary.	No	Field level validations: <ul style="list-style-type: none"> Daily Dividend 						

Field	Offset	Length	Format	Description	Required ¹	Data Validation								
				If unavailable, please submit "NA". If space filled, Nasdaq will populate the field as "NA".		<p>format does not match specification.</p> <ul style="list-style-type: none"> Daily Dividend cannot be zero. Daily Dividend Factor cannot exceed NAV. 								
Daily Dividend Adjustment Indicator	140	1	Alphanumeric	<p>Indicates if the Daily Dividend Factor was fattened to reflect weekend, holiday or other non-reported period.</p> <p>Allowable values are:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>Fat adjustment reflected in Daily Dividend Factor</td> </tr> <tr> <td>N</td> <td>No fat adjustment for Daily Dividend Factor</td> </tr> <tr> <td><space></td> <td>Not applicable; no Daily Dividend Factor provided</td> </tr> </tbody> </table>	Code	Definition	Y	Fat adjustment reflected in Daily Dividend Factor	N	No fat adjustment for Daily Dividend Factor	<space>	Not applicable; no Daily Dividend Factor provided	Yes, only if Daily Dividend is reported	<p>Field level validations:</p> <ul style="list-style-type: none"> Daily Dividend Adjustment value is not defined. Daily Dividend Adjustment factor does not match logic for associated price field. If Daily Dividend field is populated
Code	Definition													
Y	Fat adjustment reflected in Daily Dividend Factor													
N	No fat adjustment for Daily Dividend Factor													
<space>	Not applicable; no Daily Dividend Factor provided													

Field	Offset	Length	Format	Description	Required ¹	Data Validation
						with numeric value, this field must be populated as Y or N. If Daily Dividend field is populated as "NA" or spaces, this field must be populated as <space>.
Entry Date	141	8	MMDDYYYY	Reflects the date for which the daily update is valid. Except for prior day corrections, this field should reflect the current day's date.	Yes	<p>Date validations:</p> <ul style="list-style-type: none"> • Entry date cannot be a future date. • Entry date is not a valid calendar date. • Symbol was not active on entry date. <p>Field level validations:</p> <ul style="list-style-type: none"> • Entry date does not

Field	Offset	Length	Format	Description	Required ¹	Data Validation
						match specification.
Currency	149	3	Alphanumeric	Indicates the ISO currency code associated with the NFN price-related fields. For this field, Nasdaq will use ISO 4217 currency alphabetic codes . For NFN 0050, if this field is space filled, Nasdaq will populate the value as assigned in the listing.	No	Field validations: <ul style="list-style-type: none"> Currency is not a defined value.
CUSIP	152	9	Alphanumeric	Indicates the unique security identifier as assigned by S&P CUSIP Bureau for NFN instrument. If CUSIP is unknown, firm may enter a dummy CUSIP such as "123456789".	Yes	Offline validation: <ul style="list-style-type: none"> Nasdaq will compare the CUSIP number reported in this message against the CUSIP number in the NFN system. If the two values do not match, Nasdaq will include the instrument in its mismatched

Field	Offset	Length	Format	Description	Required ¹	Data Validation
						CUSIP report.
Reserved / Filler	161	17	Space filled	Space fill as needed to meet fixed message length requirement.	No	
End-of-Row Marker	178	2	Hexadecimal	Two character row marker to denote the placement of the current message within the file: Carriage return or end of file. (Note: Carriage return command is typically stored as a hexadecimal code of "0xD" and end of file is typically stored as "0xA".)	Yes	

4.2 Daily Valuation Message for Money Market Funds (NFN 0050)

This message format should be used to report daily or weekly valuation data for money market funds only.

Note: While this version of the money market fund message format may be used for intraday valuation reporting, it does not support an inbound time stamp. Downstream market data distributors will, therefore, display intraday records with associated NFN dissemination time.

The file must contain one record for each instrument being updated. The records must be 178 characters long, in the following format:

Field	Offset	Length	Format	Description	Required ⁴	Data Validation
Row Header	0	3	Alphanumeric	Defines inbound data format. "MMF" for money market fund updates with no inbound time.	Yes	Field level validations: <ul style="list-style-type: none"> Row Header value is not defined. Data format does not match the Row Header value.
Symbol (pka Fund ID)	3	11	Alphanumeric	Defines the NASDAQ assigned ticker symbol for NFN instrument. Note: This field was expanded to 11 bytes to accommodate for symbology changes as needed.	Yes	Field level validations: <ul style="list-style-type: none"> Symbol is not defined in system. Symbol status is not set to active. Symbol is not associated with the supported instrument types.

⁴ Each row in the NFN batch file must be 178 bytes. Firms may not omit fields. If not required, firms may opt to space fill the field.

Field	Offset	Length	Format	Description	Required ⁴	Data Validation																		
						<ul style="list-style-type: none"> Firm not entitled for Symbol. Symbol not associated with Money Market Fund. 																		
Footnotes	14	10	Alphanumeric	<p>Any footnotes applicable for the NFN instrument. The allowable values for money market funds are:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Fund's return may differ due to capital gains or losses</td> </tr> <tr> <td>B</td> <td>Sales or account charges may impact yield</td> </tr> <tr> <td>F</td> <td>Fund uses price of day prior to the day of reporting</td> </tr> <tr> <td>G</td> <td>Redemption Gate In Effect</td> </tr> <tr> <td>L</td> <td>Liquidity Fee In Effect</td> </tr> <tr> <td>S</td> <td>Stock split dividend*</td> </tr> <tr> <td>D</td> <td>Capital Distribution*</td> </tr> <tr> <td>X</td> <td>Cash dividend, special cash dividend or income distribution adjustment*</td> </tr> </tbody> </table>	Code	Definition	A	Fund's return may differ due to capital gains or losses	B	Sales or account charges may impact yield	F	Fund uses price of day prior to the day of reporting	G	Redemption Gate In Effect	L	Liquidity Fee In Effect	S	Stock split dividend*	D	Capital Distribution*	X	Cash dividend, special cash dividend or income distribution adjustment*	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Footnote codes not defined. Footnote codes are duplicated. Footnote code not defined for Instrument Type.
Code	Definition																							
A	Fund's return may differ due to capital gains or losses																							
B	Sales or account charges may impact yield																							
F	Fund uses price of day prior to the day of reporting																							
G	Redemption Gate In Effect																							
L	Liquidity Fee In Effect																							
S	Stock split dividend*																							
D	Capital Distribution*																							
X	Cash dividend, special cash dividend or income distribution adjustment*																							

Field	Offset	Length	Format	Description	Required ⁴	Data Validation						
				<p><i>*Note: For codes D, S and X, firms must also enter a separate Dividend/Interest or Capital Distribution message.</i></p> <p>Please contact NFN Operations if you wish to request a new footnote code.</p>								
Reporting Type	24	1	Alphanumeric	<p>Indicates the reporting frequency for NFN instrument. Proposed values are:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>R</td> <td> <p>Daily / End of Day reporting (Default)</p> <p><i>Note: Firms may use the "R" code for funds that report on daily, weekly, bi-weekly, or quarterly basis.</i></p> </td> </tr> <tr> <td>I</td> <td> <p>Intraday Update</p> <p><i>Note: On the outbound NFN Data Service data feed, Nasdaq supports the "I" reporting type value on entries with the current trading date only. For prior entry dates, Nasdaq will treat "R" and "I" values in the same manner so vendors will only update the closing value.</i></p> </td> </tr> </tbody> </table>	Code	Definition	R	<p>Daily / End of Day reporting (Default)</p> <p><i>Note: Firms may use the "R" code for funds that report on daily, weekly, bi-weekly, or quarterly basis.</i></p>	I	<p>Intraday Update</p> <p><i>Note: On the outbound NFN Data Service data feed, Nasdaq supports the "I" reporting type value on entries with the current trading date only. For prior entry dates, Nasdaq will treat "R" and "I" values in the same manner so vendors will only update the closing value.</i></p>	Yes	<p>Field level validation:</p> <ul style="list-style-type: none"> Instrument Type value is not defined. Instrument Type value does not match the value in NFN registration service for Symbol.
Code	Definition											
R	<p>Daily / End of Day reporting (Default)</p> <p><i>Note: Firms may use the "R" code for funds that report on daily, weekly, bi-weekly, or quarterly basis.</i></p>											
I	<p>Intraday Update</p> <p><i>Note: On the outbound NFN Data Service data feed, Nasdaq supports the "I" reporting type value on entries with the current trading date only. For prior entry dates, Nasdaq will treat "R" and "I" values in the same manner so vendors will only update the closing value.</i></p>											

Field	Offset	Length	Format	Description	Required ⁴	Data Validation
Average Maturity	25	3	Numeric	Average maturity reported in number of days. If unavailable, please submit "NA".	Yes	<p>Average maturity validations:</p> <ul style="list-style-type: none"> Average maturity must not exceed 365. <p>Field level valuations:</p> <ul style="list-style-type: none"> Average maturity format does not match specification.
Average Life	28	3	Numeric	Average life as calculated in accordance with the SEC Money Market Reform Act. If unavailable, please submit "NA".	Yes	<p>Average life validations:</p> <ul style="list-style-type: none"> Average life must not exceed 365. <p>Field level validation:</p> <ul style="list-style-type: none"> Average life format does not match specification.
NAV	31	13	\$\$\$\$\$.dddd	Indicates the net asset value (NAV) for the fund. If unavailable, please submit "NA".	Yes	<p>NAV price validations:</p> <ul style="list-style-type: none"> System price validation parameter for normal price reporting. If current NAV is more than X% higher or lower than prior NAV, firm should enter "#" is override field.

Field	Offset	Length	Format	Description	Required ⁴	Data Validation						
						Field level validations: <ul style="list-style-type: none"> NAV format does not match specification. 						
NAV Override	44	1	Alphanumeric (including special characters)	Indicates if the system should ignore price validations associated with the money market NAV field. Allowable values: <table border="1" data-bbox="863 565 1360 751"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	Field level validations: <ul style="list-style-type: none"> NAV Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Gross 7 Day Yield	45	9	\$\$\$\$.dddd	Provides yield based on average net income earned by the securities in the fund's portfolio during the past 7 days. In accordance with the SEC definition , gross 7 day yield should exclude capital changes and income other than investment income. In addition, the gross 7 day yield should not reflect a deduction of shareholders fees and fund operating expenses. If unavailable, please submit "NA".	Yes	Price level validations: <ul style="list-style-type: none"> System validation with variable parameter: If current Gross 7 Day Yield is more than X% higher or lower than prior Gross 7 Day Yield, firm should enter "#" is override field. Field level validations: <ul style="list-style-type: none"> Gross 7 Day Yield format does not match specification. 						

Field	Offset	Length	Format	Description	Required ⁴	Data Validation						
Gross 7 Day Yield Direction	54	1	Alphanumeric (including special characters)	<p>Indicates if the gross 7 day yield value is positive or negative. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>- <dash></td> <td>Negative yield; Gross yield is less than 0.00% so it should be displayed with negative sign.</td> </tr> <tr> <td><space></td> <td>Positive or zero yield (Default)</td> </tr> </tbody> </table>	Code	Definition	- <dash>	Negative yield; Gross yield is less than 0.00% so it should be displayed with negative sign.	<space>	Positive or zero yield (Default)	Yes, only if yield is negative	<p>Field level validations:</p> <ul style="list-style-type: none"> Yield direction value is not defined.
Code	Definition											
- <dash>	Negative yield; Gross yield is less than 0.00% so it should be displayed with negative sign.											
<space>	Positive or zero yield (Default)											
Gross 7 Day Yield Override	55	1	Alphanumeric (including special characters)	<p>Indicates if the system should ignore % validations associated with the Gross 7 Day Yield field. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Subsidized 7 Day Yield	56	9	\$\$\$\$.dddd	The subsidized yield reflects the yield calculation with expense limitation currently in effect. If unavailable, please submit "NA".	Yes	<p>Price level validations:</p> <ul style="list-style-type: none"> System validation with variable parameter: If current Subsidized 7 Day Yield is more than X% higher or lower than prior Subsidized 						

Field	Offset	Length	Format	Description	Required ⁴	Data Validation						
						<p>7 Day Yield, firm should enter “#” is override field.</p> <p>Field level validations:</p> <ul style="list-style-type: none"> Subsidized 7 Day Yield format does not match specification. 						
Subsidized 7 Day Yield Direction	65	1	Alphanumeric (including special characters)	<p>Indicates if the subsidized 7 day yield – subsidized value is positive or negative. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>- <dash></td> <td>Negative yield; Subsidized yield is less than 0.00% so it should be displayed with negative sign.</td> </tr> <tr> <td><space></td> <td>Positive or zero yield (Default)</td> </tr> </tbody> </table>	Code	Definition	- <dash>	Negative yield; Subsidized yield is less than 0.00% so it should be displayed with negative sign.	<space>	Positive or zero yield (Default)	Yes, only if yield is negative	<p>Field level validations:</p> <ul style="list-style-type: none"> Yield direction value is not defined.
Code	Definition											
- <dash>	Negative yield; Subsidized yield is less than 0.00% so it should be displayed with negative sign.											
<space>	Positive or zero yield (Default)											
Subsidized 7 Day Yield Override	66	1	Alphanumeric (including special characters)	<p>Indicates if the system should ignore % validations associated with the Subsidized 7 Day Yield field. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> </tbody> </table>	Code	Definition	#	Override On	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Override value is not defined. 		
Code	Definition											
#	Override On											

Field	Offset	Length	Format	Description	Required ⁴	Data Validation						
				<table border="1"> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </table>	<space>	Override Off (Default)						
<space>	Override Off (Default)											
Effective Annualized 7 Day Yield	67	9	\$\$\$\$.dddd	<p>Reflects the expected annualized yield assuming that any income earned was reinvested.</p> <p>If unavailable, please submit "NA". If this field is space filled, Nasdaq will disseminate this field as "NA".</p>	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Effective Annualized 7 Day Yield format does not match specification. 						
Effective Annualized 7 Day Yield Direction	76	1	Alphanumeric (including special characters)	<p>Indicates if the effective annualized 7 day yield value is positive or negative. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>- <dash></td> <td>Negative yield; Effective annualized yield is less than 0.00% so it should be displayed with negative sign.</td> </tr> <tr> <td><space></td> <td>Positive or zero yield (Default)</td> </tr> </tbody> </table>	Code	Definition	- <dash>	Negative yield; Effective annualized yield is less than 0.00% so it should be displayed with negative sign.	<space>	Positive or zero yield (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Yield direction value is not defined.
Code	Definition											
- <dash>	Negative yield; Effective annualized yield is less than 0.00% so it should be displayed with negative sign.											
<space>	Positive or zero yield (Default)											
30 Day Yield	77	9	\$\$\$\$.dddd	<p>Indicates the 30 day yield value based on the SEC calculation methodology with expense limitation currently in effect.</p> <p>If unavailable, please submit "NA". If this field is space filled, Nasdaq will disseminate this field as "NA".</p>	No	<p>Field level validations:</p> <ul style="list-style-type: none"> 30 Day Yield format does not match specification. 						

Field	Offset	Length	Format	Description	Required ⁴	Data Validation						
30 Day Yield Direction	86	1	Alphanumeric (including special characters)	<p>Indicates if the 30 day yield value is positive or negative. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>- <dash></td> <td>Negative yield; 30 day yield is less than 0.00% so it should be displayed with negative sign.</td> </tr> <tr> <td><space></td> <td>Positive or zero yield (Default)</td> </tr> </tbody> </table>	Code	Definition	- <dash>	Negative yield; 30 day yield is less than 0.00% so it should be displayed with negative sign.	<space>	Positive or zero yield (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Yield direction value is not defined.
Code	Definition											
- <dash>	Negative yield; 30 day yield is less than 0.00% so it should be displayed with negative sign.											
<space>	Positive or zero yield (Default)											
30 Day Yield Date	87	8	MMDDYYYY	<p>Indicates the period end date for which the 30 day yield was calculated.</p> <p>If unavailable, please submit "NA".</p> <p>If this field is space filled, Nasdaq will disseminate this field as "NA".</p>	Yes, only if 30 day yield is reported	<p>Date validations:</p> <ul style="list-style-type: none"> 30 Day Yield Date is a future date. 30 Date Yield Date is more than 365 days in the past. 30 Day Yield Date is not a valid calendar date. <p>Field level validations:</p> <ul style="list-style-type: none"> 30 Day Yield Date does not match specification. 						
Daily Dividend Factor	95	9	\$\$.dddddd	Indicates the dividend factor if the money market fund declares a daily dividend. Please note that firms should	No	Field level validations:						

Field	Offset	Length	Format	Description	Required ⁴	Data Validation								
				<p>make dividend adjustments for weekends and holidays as necessary.</p> <p>If unavailable, please submit "NA".</p> <p>If this field is space filled, Nasdaq will disseminate this field as "NA".</p>		<ul style="list-style-type: none"> Daily Dividend format does not match specification. Daily Dividend cannot be zero. Daily Dividend cannot exceed NAV. 								
Daily Dividend Adjustment Indicator	104	1	Alphanumeric	<p>Indicates if the Daily Dividend Adjustment Factor was fattened to reflect weekend, holiday or other non-reported period.</p> <p>Allowable values are:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>Fat adjustment reflected in Daily Dividend Factor</td> </tr> <tr> <td>N</td> <td>No fat adjustment for Daily Dividend Factor</td> </tr> <tr> <td><space></td> <td>Not applicable; no Daily Dividend Factor provided</td> </tr> </tbody> </table>	Code	Definition	Y	Fat adjustment reflected in Daily Dividend Factor	N	No fat adjustment for Daily Dividend Factor	<space>	Not applicable; no Daily Dividend Factor provided	Yes, only if Daily Dividend is reported	<p>Field level validations:</p> <ul style="list-style-type: none"> Daily Dividend Adjustment value is not defined. Daily Dividend Adjustment factor does not match logic for associated price field. If Daily Dividend field is populated with numeric value, this field must be populated as Y or N. If Daily Dividend field is populated as "NA" or spaces, this field must be populated as <space>.
Code	Definition													
Y	Fat adjustment reflected in Daily Dividend Factor													
N	No fat adjustment for Daily Dividend Factor													
<space>	Not applicable; no Daily Dividend Factor provided													
Total Net Assets	105	15	\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$	Indicates the total net assets (actual amount in <u>listed currency</u>) for instrument.	No	<p>Total Net Asset validations:</p> <ul style="list-style-type: none"> If the Total Net Assets is less than \$ 								

Field	Offset	Length	Format	Description	Required ⁴	Data Validation						
				<p>If available, please submit "NA".</p> <p>If this field is space filled, Nasdaq will disseminate this field as "NA".</p>		<p>threshold parameter, firm should enter "#" in override field.</p> <ul style="list-style-type: none"> Total Net Assets cannot be zero. <p>Field level validations:</p> <ul style="list-style-type: none"> Total Net Asset format does not match specification. 						
Total Net Assets Override	120	1	Alphanumeric (with special characters)	<p>Indicates if the system should ignore system validations associated with the Total Net Asset field. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Total Net Assets Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Entry Date	121	8	MMDDYYYY	<p>Reflects the date for which the daily update is valid. Except for prior day corrections, this field should reflect the current day's date.</p>	Yes	<p>Date validations:</p> <ul style="list-style-type: none"> Entry date cannot be a future date. Entry date is not a valid calendar date. Symbol was not active on entry date. <p>Field level validations:</p> <ul style="list-style-type: none"> Entry date does not match specification. 						

Field	Offset	Length	Format	Description	Required ⁴	Data Validation
Currency	129	3	Alphanumeric	Indicates the ISO currency code associated with the NFN price-related fields. For this field, Nasdaq will use ISO 4217 currency alphabetic codes . For NFN 0050, if this field is space filled, Nasdaq will populate the value as assigned in the listing.	No	Field validations: <ul style="list-style-type: none"> Currency reported is not a defined value.
CUSIP	132	9	Alphanumeric	Indicates the unique security identifier as assigned by S&P CUSIP Bureau for NFN instrument. If CUSIP is unknown, firm may enter a dummy CUSIP such as "123456789".	Yes	Offline validations: <ul style="list-style-type: none"> Nasdaq will compare the CUSIP number reported in this message against the CUSIP number in the NFN system. If the two values do not match, Nasdaq will include the instrument in its mismatched CUSIP report.
Reserved / Filler	141	37	Space filled	Space fill as needed to meet fixed message length requirement.		
End-of-Row Marker	178	2	Hexadecimal	Two character row marker to denote the placement of the current message within the file: Carriage return or end of file. (Note: Carriage return command is typically stored as a hexadecimal code of	Yes	

Field	Offset	Length	Format	Description	Required ⁴	Data Validation
				"0xD" and end of file is typically stored as "0xA".)		

4.3 Daily Valuation Message for Money Market Funds with Calculation Time (NFN 0050)

This new message format should be used by money market funds to report intraday, daily or weekly valuation data as of July 11, 2016. Firms should use this version of the money market fund message format if they wish to have a specific NAV calculation time displayed.

The file must contain one record for each instrument being updated. The records must be 178 characters long, in the following format:

Field	Offset	Length	Format	Description	Required ⁵	Data Validation
Row Header	0	3	Alphanumeric	Defines inbound data format. "MMC" for money market fund updates with calculation time.	Yes	Field level validations: <ul style="list-style-type: none"> Row Header value is not defined. Data format does not match the Row Header value.
Symbol	3	11	Alphanumeric	Defines the NASDAQ assigned ticker symbol for NFN instrument.	Yes	Field level validations:

⁵ Each row in the NFN batch file must be 178 bytes. Firms may not omit fields. If not required, firms may opt to space fill the field.

Field	Offset	Length	Format	Description	Required ⁵	Data Validation														
				Note: This field was expanded to 11 bytes to accommodate for symbology changes as needed.		<ul style="list-style-type: none"> Symbol is not defined in system. Symbol status is not set to active. Symbol is not associated with the supported instrument types. Firm not entitled for Symbol. Symbol not associated with Money Market Fund. 														
Footnotes	14	10	Alphanumeric	<p>Any footnotes applicable for the NFN instrument. The allowable values for money market funds are:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Fund's return may differ due to capital gains or losses</td> </tr> <tr> <td>B</td> <td>Sales or account charges may impact yield</td> </tr> <tr> <td>F</td> <td>Fund uses price of day prior to the day of reporting</td> </tr> <tr> <td>G</td> <td>Redemption Gate In Effect</td> </tr> <tr> <td>L</td> <td>Liquidity Fee In Effect</td> </tr> <tr> <td>S</td> <td>Stock split dividend*</td> </tr> </tbody> </table>	Code	Definition	A	Fund's return may differ due to capital gains or losses	B	Sales or account charges may impact yield	F	Fund uses price of day prior to the day of reporting	G	Redemption Gate In Effect	L	Liquidity Fee In Effect	S	Stock split dividend*	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Footnote codes not defined. Footnote codes are duplicated. Footnote code not defined for Instrument Type.
Code	Definition																			
A	Fund's return may differ due to capital gains or losses																			
B	Sales or account charges may impact yield																			
F	Fund uses price of day prior to the day of reporting																			
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S	Stock split dividend*																			

Field	Offset	Length	Format	Description	Required ⁵	Data Validation						
				<table border="1"> <tr> <td>D</td> <td>Capital Distribution*</td> </tr> <tr> <td>X</td> <td>Cash dividend, special cash dividend or income distribution adjustment*</td> </tr> </table> <p><i>*Note: For codes D, S and X, firms must also enter a separate Dividend/Interest or Capital Distribution message.</i></p> <p>Please contact NFN Operations if you wish to request a new footnote code.</p>	D	Capital Distribution*	X	Cash dividend, special cash dividend or income distribution adjustment*				
D	Capital Distribution*											
X	Cash dividend, special cash dividend or income distribution adjustment*											
Reporting Type	24	1	Alphanumeric	<p>Indicates the reporting frequency for NFN instrument. Proposed values are:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>R</td> <td>Daily / End of Day reporting (Default) <i>Note: Firms may use the "R" code for funds that report on daily, weekly, bi-weekly, or quarterly basis.</i></td> </tr> <tr> <td>I</td> <td>Intraday Update <i>Note: On the outbound NFN Data Service data feed, Nasdaq supports the "I" reporting type value on entries with the current trading date only. Although all prior day transactions will be marked as "C" reporting</i></td> </tr> </tbody> </table>	Code	Definition	R	Daily / End of Day reporting (Default) <i>Note: Firms may use the "R" code for funds that report on daily, weekly, bi-weekly, or quarterly basis.</i>	I	Intraday Update <i>Note: On the outbound NFN Data Service data feed, Nasdaq supports the "I" reporting type value on entries with the current trading date only. Although all prior day transactions will be marked as "C" reporting</i>	Yes	<p>Field level validation:</p> <ul style="list-style-type: none"> Instrument Type value is not defined. Instrument Type value does not match the value in NFN registration service for Symbol.
Code	Definition											
R	Daily / End of Day reporting (Default) <i>Note: Firms may use the "R" code for funds that report on daily, weekly, bi-weekly, or quarterly basis.</i>											
I	Intraday Update <i>Note: On the outbound NFN Data Service data feed, Nasdaq supports the "I" reporting type value on entries with the current trading date only. Although all prior day transactions will be marked as "C" reporting</i>											

Field	Offset	Length	Format	Description	Required ⁵	Data Validation
				<i>type on outbound message formats, Nasdaq will reflect calculation time on all outbound money market fund messages as of July 11, 2016.</i>		
Average Maturity	25	3	Numeric	Average maturity reported in number of days. If unavailable, please submit "NA".	Yes	<p>Average maturity validations:</p> <ul style="list-style-type: none"> Average maturity must not exceed 365. <p>Field level valuations:</p> <ul style="list-style-type: none"> Average maturity format does not match specification.
Average Life	28	3	Numeric	Average life as calculated in accordance with the SEC Money Market Reform Act. If unavailable, please submit "NA".	Yes	<p>Average life validations:</p> <ul style="list-style-type: none"> Average life must not exceed 365. <p>Field level validation:</p> <ul style="list-style-type: none"> Average life format does not match specification.
NAV	31	13	\$\$\$\$\$.dddddd	Indicates the net asset value (NAV) for the fund. If unavailable, please submit "NA".	Yes	<p>NAV price validations:</p> <ul style="list-style-type: none"> System price validation parameter for normal price

Field	Offset	Length	Format	Description	Required ⁵	Data Validation						
						<p>reporting. If current NAV is more than X% higher or lower than prior NAV, firm should enter “#” is override field.</p> <p>Field level validations:</p> <ul style="list-style-type: none"> NAV format does not match specification. 						
NAV Override	44	1	Alphanumeric (including special characters)	<p>Indicates if the system should ignore price validations associated with the money market NAV field. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> NAV Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Gross 7 Day Yield	45	9	\$\$\$\$.dddd	<p>Provides yield based on average net income earned by the securities in the fund’s portfolio during the past 7 days.</p> <p>In accordance with the SEC definition, gross 7 day yield should exclude capital changes and income other than investment income. In addition, the gross 7 day yield should not reflect a deduction of shareholders fees and fund operating expenses.</p>	Yes	<p>Price level validations:</p> <ul style="list-style-type: none"> System validation with variable parameter: If current Gross 7 Day Yield is more than X% higher or lower than prior Gross 7 Day Yield, firm should enter “#” is override field. 						

Field	Offset	Length	Format	Description	Required ⁵	Data Validation						
				If unavailable, please submit "NA".		Field level validations: <ul style="list-style-type: none"> Gross 7 Day Yield format does not match specification. 						
Gross 7 Day Yield Direction	54	1	Alphanumeric (including special characters)	Indicates if the gross 7 day yield value is positive or negative. Allowable values: <table border="1" data-bbox="856 532 1356 911"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>- <dash></td> <td>Negative yield; Gross yield is less than 0.00% so it should be displayed with negative sign.</td> </tr> <tr> <td><space></td> <td>Positive or zero yield (Default)</td> </tr> </tbody> </table>	Code	Definition	- <dash>	Negative yield; Gross yield is less than 0.00% so it should be displayed with negative sign.	<space>	Positive or zero yield (Default)	Yes, only if yield is negative	Field level validations: <ul style="list-style-type: none"> Yield direction value is not defined.
Code	Definition											
- <dash>	Negative yield; Gross yield is less than 0.00% so it should be displayed with negative sign.											
<space>	Positive or zero yield (Default)											
Gross 7 Day Yield Override	55	1	Alphanumeric (including special characters)	Indicates if the system should ignore % validations associated with the Gross 7 Day Yield field. Allowable values: <table border="1" data-bbox="856 1101 1356 1284"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	Field level validations: <ul style="list-style-type: none"> Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Subsidized 7 Day Yield	56	9	\$\$\$\$.dddd	The subsidized yield reflects the yield calculation with expense limitation	Yes	Price level validations:						

Field	Offset	Length	Format	Description	Required ⁵	Data Validation						
				<p>currently in effect. If unavailable, please submit "NA".</p> <p>Note: A direction field is being added to support negative yield values. Once implemented, NASDAQ will discontinue the temporary footnote code of "0".</p>		<ul style="list-style-type: none"> System validation with variable parameter: If current Subsidized 7 Day Yield is more than X% higher or lower than prior Subsidized 7 Day Yield, firm should enter "#" is override field. <p>Field level validations:</p> <ul style="list-style-type: none"> Subsidized 7 Day Yield format does not match specification. 						
Subsidized 7 Day Yield Direction	65	1	Alphanumeric (including special characters)	<p>Indicates if the subsidized 7 day yield – subsidized value is positive or negative. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>- <dash></td> <td>Negative yield; Subsidized yield is less than 0.00% so it should be displayed with negative sign.</td> </tr> <tr> <td><space></td> <td>Positive or zero yield (Default)</td> </tr> </tbody> </table>	Code	Definition	- <dash>	Negative yield; Subsidized yield is less than 0.00% so it should be displayed with negative sign.	<space>	Positive or zero yield (Default)	Yes, only if yield is negative	<p>Field level validations:</p> <ul style="list-style-type: none"> Yield direction value is not defined.
Code	Definition											
- <dash>	Negative yield; Subsidized yield is less than 0.00% so it should be displayed with negative sign.											
<space>	Positive or zero yield (Default)											

Field	Offset	Length	Format	Description	Required ⁵	Data Validation						
Subsidized 7 Day Yield Override	66	1	Alphanumeric (including special characters)	<p>Indicates if the system should ignore % validations associated with the Subsidized 7 Day Yield field. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Effective Annualized 7 Day Yield	67	9	\$\$\$\$.dddd	<p>Reflects the expected annualized yield assuming that any income earned was reinvested.</p> <p>If unavailable, please submit "NA". If this field is space filled, Nasdaq will disseminate this field as "NA".</p>	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Effective Annualized 7 Day Yield format does not match specification. 						
Effective Annualized 7 Day Yield Direction	76	1	Alphanumeric (including special characters)	<p>Indicates if the effective annualized 7 day yield value is positive or negative. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>- <dash></td> <td>Negative yield; Effective annualized yield is less than 0.00% so it should be displayed with negative sign.</td> </tr> <tr> <td><space></td> <td>Positive or zero yield (Default)</td> </tr> </tbody> </table>	Code	Definition	- <dash>	Negative yield; Effective annualized yield is less than 0.00% so it should be displayed with negative sign.	<space>	Positive or zero yield (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Yield direction value is not defined.
Code	Definition											
- <dash>	Negative yield; Effective annualized yield is less than 0.00% so it should be displayed with negative sign.											
<space>	Positive or zero yield (Default)											

Field	Offset	Length	Format	Description	Required ⁵	Data Validation						
30 Day Yield	77	9	\$\$\$\$.dddd	Indicates the 30 day yield value based on the SEC calculation methodology with expense limitation currently in effect. If unavailable, please submit "NA". If this field is space filled, Nasdaq will disseminate this field as "NA".	No	Field level validations: <ul style="list-style-type: none"> 30 Day Yield format does not match specification. 						
30 Day Yield Direction	86	1	Alphanumeric (including special characters)	Indicates if the 30 day yield value is positive or negative. Allowable values: <table border="1" data-bbox="856 597 1356 977"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>- <dash></td> <td>Negative yield; 30 day yield is less than 0.00% so it should be displayed with negative sign.</td> </tr> <tr> <td><space></td> <td>Positive or zero yield (Default)</td> </tr> </tbody> </table>	Code	Definition	- <dash>	Negative yield; 30 day yield is less than 0.00% so it should be displayed with negative sign.	<space>	Positive or zero yield (Default)	No	Field level validations: <ul style="list-style-type: none"> Yield direction value is not defined.
Code	Definition											
- <dash>	Negative yield; 30 day yield is less than 0.00% so it should be displayed with negative sign.											
<space>	Positive or zero yield (Default)											
30 Day Yield Date	87	8	MMDDYYYY	Indicates the period end date for which the 30 day yield was calculated. If unavailable, please submit "NA". If this field is space filled, Nasdaq will disseminate this field as "NA".	Yes, only if 30 day yield is reported	Date validations: <ul style="list-style-type: none"> 30 Day Yield Date is a future date. 30 Date Yield Date is more than 365 days in the past. 30 Day Yield Date is not a valid calendar date. Field level validations:						

Field	Offset	Length	Format	Description	Required ⁵	Data Validation								
						<ul style="list-style-type: none"> 30 Day Yield Date does not match specification. 								
Daily Dividend Factor	95	9	\$\$.dddddd	<p>Indicates the dividend factor if the money market fund declares a daily dividend. Please note that firms should make dividend adjustments for weekends and holidays as necessary.</p> <p>If unavailable, please submit "NA".</p> <p>If this field is space filled, Nasdaq will disseminate this field as "NA".</p>	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Daily Dividend format does not match specification. Daily Dividend cannot be zero. Daily Dividend cannot exceed NAV. 								
Daily Dividend Adjustment Indicator	104	1	Alphanumeric	<p>Indicates if the Daily Dividend Adjustment Factor was fattened to reflect weekend, holiday or other non-reported period.</p> <p>Allowable values are:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>Fat adjustment reflected in Daily Dividend Factor</td> </tr> <tr> <td>N</td> <td>No fat adjustment for Daily Dividend Factor</td> </tr> <tr> <td><space></td> <td>Not applicable; no Daily Dividend Factor provided</td> </tr> </tbody> </table>	Code	Definition	Y	Fat adjustment reflected in Daily Dividend Factor	N	No fat adjustment for Daily Dividend Factor	<space>	Not applicable; no Daily Dividend Factor provided	Yes, only if Daily Dividend is reported	<p>Field level validations:</p> <ul style="list-style-type: none"> Daily Dividend Adjustment value is not defined. Daily Dividend Adjustment factor does not match logic for associated price field. If Daily Dividend field is populated with numeric value, this field must be populated as Y or N. If Daily Dividend field is populated as "NA" or spaces, this field
Code	Definition													
Y	Fat adjustment reflected in Daily Dividend Factor													
N	No fat adjustment for Daily Dividend Factor													
<space>	Not applicable; no Daily Dividend Factor provided													

Field	Offset	Length	Format	Description	Required ⁵	Data Validation						
						must be populated as <space>.						
Total Net Assets	105	15	\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$	<p>Indicates the total net assets (actual amount in <u>listed currency</u>) for instrument.</p> <p>If available, please submit "NA".</p> <p>If this field is space filled, Nasdaq will disseminate this field as "NA".</p>	No	<p>Total Net Asset validations:</p> <ul style="list-style-type: none"> If the Total Net Assets is less than \$ threshold parameter, firm should enter "#" in override field. Total Net Assets cannot be zero. <p>Field level validations:</p> <ul style="list-style-type: none"> Total Net Asset format does not match specification. 						
Total Net Assets Override	120	1	Alphanumeric (with special characters)	<p>Indicates if the system should ignore system validations associated with the Total Net Asset field. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Total Net Assets Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Entry Date	121	8	MMDDYYYY	<p>Reflects the date for which the daily update is valid. Except for prior day corrections, this field should reflect the current day's date.</p>	Yes	<p>Date validations:</p> <ul style="list-style-type: none"> Entry date cannot be a future date. Entry date is not a valid calendar date. 						

Field	Offset	Length	Format	Description	Required ⁵	Data Validation
						<ul style="list-style-type: none"> Symbol was not active on entry date. <p>Field level validations:</p> <ul style="list-style-type: none"> Entry date does not match specification.
Currency	129	3	Alphanumeric	<p>Indicates the ISO currency code associated with the NFN price-related fields. For this field, Nasdaq will use ISO 4217 currency alphabetic codes.</p> <p>For NFN 0050, if this field is space filled, Nasdaq will populate the value as assigned in the listing.</p>	No	<p>Field validations:</p> <ul style="list-style-type: none"> Currency reported is not a defined value.
CUSIP	132	9	Alphanumeric	<p>Indicates the unique security identifier as assigned by S&P CUSIP Bureau for NFN instrument.</p> <p>If CUSIP is unknown, firm may enter a dummy CUSIP such as "123456789".</p>	Yes	<p>Offline validations:</p> <ul style="list-style-type: none"> Nasdaq will compare the CUSIP number reported in this message against the CUSIP number in the NFN system. If the two values do not match, Nasdaq will include the instrument in its mismatched CUSIP report.
Calculation Time	141	6	HHMMSS	<p>Denotes the calculation time associated with the money market fund record. Calculation time must be stated in</p>	Yes	<p>Field validation:</p> <ul style="list-style-type: none"> Field must be populated as 6

Field	Offset	Length	Format	Description	Required ⁵	Data Validation
				<p>military time for the US Eastern Time zone.</p> <p>Examples:</p> <ul style="list-style-type: none"> • 11:00 a.m. Eastern Time should be reported as "110000". • 10:00 a.m., Central Time should be reported as "110000". • 4:00 p.m., Eastern Time should be reported as "160000". <p>If unavailable, enter "NA".</p>		<p>numeric characters or "NA".</p> <ul style="list-style-type: none"> • Time must be stated in HHMMSS format. <ul style="list-style-type: none"> ○ HH must be 00 to 23 ○ MM must be 00 to 59 ○ SS must be 00 to 59
Reserved / Filler	147	31	Space filled	Space fill as needed to meet fixed message length requirement.	No	
End-of-Row Marker	178	2	Hexadecimal	<p>Two character row marker to denote the placement of the current message within the file: Carriage return or end of file.</p> <p>(Note: Carriage return command is typically stored as a hexadecimal code of "0xD" and end of file is typically stored as "0xA".)</p>	Yes	

4.4 Distributions Report for All NFN Instruments (NFN 0050)

This message format should be used to report distributions (other than dividends and interest) for all NFN instruments. The file must contain one record for each instrument being updated. The records must be 178 characters long, in the following format:

Field	Offset	Length	Format	Description	Required ⁶	Data Validation
Row Header	0	3	Alphanumeric	Defines inbound data format. "DST" for distributions.	Yes	Field level validations: <ul style="list-style-type: none"> Row Header value is not defined. Data format does not match the Row Header value.
Symbol (pka Fund ID)	3	11	Alphanumeric	Defines the Nasdaq assigned ticker symbol for NFN instrument. <u>Note:</u> The NFN processing logic relies on the Symbol field for the NFN Data Service corporate action spin. If the NFN Symbol field needs to be adjusted, Nasdaq recommends that firms cancel and re-enter the distribution record (rather than correcting the record).	Yes	Field level Field level validations: <ul style="list-style-type: none"> Symbol is not defined in system. Symbol status is not set to active. Symbol is not associated with the supported instrument types. Firm not entitled for Symbol.
Instrument Type	14	2	Alphanumeric	Indicates the type of NFN instrument being priced. Allowable values are:	Yes	Field level validation:

⁶ Each row in the NFN batch file must be 178 bytes. Firms may not omit fields. If not required, firms may opt to space fill the field.

Field	Offset	Length	Format	Description	Required ⁶	Data Validation																										
(pka Fund Type, MFQS Instrument Type)				<table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>MF</td> <td>Mutual Fund</td> </tr> <tr> <td>MM</td> <td>Money Market Fund</td> </tr> <tr> <td>UT</td> <td>Unit Investment Trust</td> </tr> <tr> <td>SP</td> <td>Structured Product</td> </tr> <tr> <td>AN</td> <td>Annuity</td> </tr> <tr> <td>AP</td> <td>Alternative Investment Product</td> </tr> <tr> <td>EM</td> <td>Exchange Traded Managed Fund</td> </tr> <tr> <td>CT</td> <td>Collective Investment Trust</td> </tr> <tr> <td>MA</td> <td>Managed Accounts</td> </tr> <tr> <td>SA</td> <td>Separate Accounts</td> </tr> <tr> <td>HF</td> <td>Hedge Fund</td> </tr> <tr> <td>DD</td> <td>Demand Deposit Account</td> </tr> </tbody> </table>	Code	Definition	MF	Mutual Fund	MM	Money Market Fund	UT	Unit Investment Trust	SP	Structured Product	AN	Annuity	AP	Alternative Investment Product	EM	Exchange Traded Managed Fund	CT	Collective Investment Trust	MA	Managed Accounts	SA	Separate Accounts	HF	Hedge Fund	DD	Demand Deposit Account		<ul style="list-style-type: none"> Instrument Type value is not defined. Instrument Type value reported in record does not match the Instrument Type in the NFN listing data base.
				Code	Definition																											
				MF	Mutual Fund																											
				MM	Money Market Fund																											
				UT	Unit Investment Trust																											
				SP	Structured Product																											
				AN	Annuity																											
				AP	Alternative Investment Product																											
				EM	Exchange Traded Managed Fund																											
				CT	Collective Investment Trust																											
				MA	Managed Accounts																											
				SA	Separate Accounts																											
HF	Hedge Fund																															
DD	Demand Deposit Account																															
Short Term Capital Gain	16	13	\$\$\$\$\$.dddddd	Indicates the portion of the total capital gain that is taxed to the shareholder as ordinary income. If unavailable, please submit "NA".	Yes	Price level validations: <ul style="list-style-type: none"> Short Term Capital Gain validation based on NAV price parameter: If the Short Term Capital Gain as a % of NAV 																										

Field	Offset	Length	Format	Description	Required ⁶	Data Validation						
						<p>exceeds the NFN system parameter, firm must enter “#” in override field.</p> <ul style="list-style-type: none"> Short Term Capital Gain cannot be zero. <p>Field level validation:</p> <ul style="list-style-type: none"> Short Term Capital Gain data format does not match specification. 						
Short Term Capital Gain Override	29	1	Alphanumeric (with special characters)	<p>Indicates if the system should ignore system validations associated with the Total Net Asset field. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Short Term Capital Gain Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Long Term Capital Gain	30	13	\$\$\$\$\$.dddddd	<p>Indicates the portion of the total capital gain that is taxed to the shareholder at the long-term capital gains rate. If unavailable, please submit “NA”.</p>	Yes	<p>Price level validations:</p> <ul style="list-style-type: none"> Long Term Capital Gain validation based on NAV price parameter: If the Long Term Capital Gain as a % of NAV exceeds the NFN system parameter, 						

Field	Offset	Length	Format	Description	Required ⁶	Data Validation						
						firm must enter “#” in override field. <ul style="list-style-type: none"> Long Term Capital Gain cannot be zero. Field level validation: <ul style="list-style-type: none"> Long Term Capital Gain data format does not match specification. 						
Long Term Capital Gain Override	43	1	Alphanumeric (with special characters)	Indicates if the system should ignore system validations associated with the Total Net Asset field. Allowable values: <table border="1" data-bbox="863 820 1383 1037"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	Field level validations: <ul style="list-style-type: none"> Long Term Capital Gain Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Unallocated Distributions	44	13	\$\$\$\$\$.dddddd	Amount of unassigned term gains. If unavailable, please submit “NA”. If space filled, Nasdaq will populate the field as “NA”.	No	Field level validation: <ul style="list-style-type: none"> Unallocated distributions data format does not match specification. 						
Return of Capital (ROC)	57	13	\$\$\$\$\$.dddddd	Indicates amount of return of capital (ROC) to the instrument shareholders.	No	Price level validations: <ul style="list-style-type: none"> ROC validation based on NAV price 						

Field	Offset	Length	Format	Description	Required ⁶	Data Validation						
				If unavailable, please submit "NA". If space filled, Nasdaq will populate the field as "NA".		parameter: If the ROC as a % of NAV exceeds the NFN system parameter, firm must enter "#" in override field. Field level validation: <ul style="list-style-type: none"> ROC data format does not match specification. 						
ROC Override	70	1	Alphanumeric (with special characters)	Indicates if the system should ignore system validations associated with the ROC field. Allowable values: <table border="1" data-bbox="863 792 1388 979"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	Field level validations: <ul style="list-style-type: none"> ROC Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Payment Date	71	8	MMDDYYYY	Indicates the payment date for an income distribution or a capital distribution. If no payment date, please submit "NA".	Yes	Date validations: <ul style="list-style-type: none"> Payment date is not a valid calendar date. Field level validations: <ul style="list-style-type: none"> Payment date does not match specification. 						
Record Date	79	8	MMDDYYYY	Indicates the record date for the distribution. Shareholders of the	Yes	Date validations:						

Field	Offset	Length	Format	Description	Required ⁶	Data Validation
				instrument as of this date would receive the distribution.		<ul style="list-style-type: none"> Record date is not a valid calendar date. <p>Field level validations:</p> <ul style="list-style-type: none"> Record date does not match specification.
Ex Date	87	8	MMDDYYYY	<p>Indicates the ex-date for the distribution. This is the date that NAV should be adjusted.</p> <p><u>Note:</u> The NFN processing logic relies on the Ex-Date field for the NFN Data Service corporate action spin. If the Ex-Date field needs to be adjusted, Nasdaq recommends that firms cancel and re-enter the distribution record (rather than correcting the record).</p>	Yes	<p>Date validations:</p> <ul style="list-style-type: none"> Ex-date date is not a valid calendar date. <p>Field level validations:</p> <ul style="list-style-type: none"> Ex-date does not match specification.
Reinvest Date	95	8	MMDDYYYY	Indicates the reinvestment date for the distribution. If no reinvestment, please submit "NA".	Yes	<p>Date validations:</p> <ul style="list-style-type: none"> Reinvest date is not a valid calendar date. <p>Field level validations:</p> <ul style="list-style-type: none"> Reinvest date does not match specification.

Field	Offset	Length	Format	Description	Required ⁶	Data Validation								
Action	103	1	Alphanumeric	<p>Indicates if the NFN dividend / distribution report is a new entry or corrected entry. Allowable values are:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>N</td> <td>New entry</td> </tr> <tr> <td>C</td> <td>Corrected entry</td> </tr> <tr> <td>X</td> <td>Canceled distribution</td> </tr> </tbody> </table> <p><u>Note</u>: Please enter the full record for cancelled and corrected entries.</p> <p>Because the NFN logic is based on the symbol and ex-date fields, Nasdaq highly recommends that firms enter a Symbol or Ex-Date correction as two separate entries: a cancellation for the original entry plus a new entry with the corrected information.</p>	Code	Definition	N	New entry	C	Corrected entry	X	Canceled distribution	Yes	<p>Field level validations:</p> <ul style="list-style-type: none"> Action value is not defined. Action value is not correct based on prior entries for the symbol and ex-date. Initial entries must be marked as "N". Subsequent / duplicate messages must be marked as "C" or "X".
Code	Definition													
N	New entry													
C	Corrected entry													
X	Canceled distribution													
Entry Date	104	8	MMDDYYYY	<p>Reflects the date on which the distributions were reported to NFN. This field should reflect the current date.</p>	Yes	<p>Date validations:</p> <ul style="list-style-type: none"> Entry date cannot be a future date. Entry date is not a valid calendar date. Symbol was not active on entry date. <p>Field level validations:</p>								

Field	Offset	Length	Format	Description	Required ⁶	Data Validation
						<ul style="list-style-type: none"> Entry date does not match specification.
Currency	112	3	Alphanumeric	<p>Indicates the ISO currency code associated with the NFN price-related fields. For this field, Nasdaq will use ISO 4217 currency alphabetic codes.</p> <p>For NFN 0050, if this field is space filled, Nasdaq will populate the value as assigned in the listing.</p> <p>If this field is space filled, Nasdaq will populate with the currency in the instrument listing.</p>	No	<p>Field validations:</p> <ul style="list-style-type: none"> Currency reported is not a defined value.
CUSIP	115	9	Alphanumeric	Indicates the unique security identifier as assigned by S&P CUSIP Bureau for NFN instrument.	Yes	<p>Offline validation:</p> <ul style="list-style-type: none"> Nasdaq will compare the CUSIP number reported in this message against the CUSIP number in the NFN system. If the two values do not match, Nasdaq will include the instrument in its mismatched CUSIP report.
Reserved / Filler	124	54	Space filled	Space fill as needed to meet fixed message length requirement.		

Field	Offset	Length	Format	Description	Required ⁶	Data Validation
End-of-Row Marker	178	2	Hexadecimal	Two character row marker to denote the placement of the current message within the file: Carriage return or end of file. (Note: Carriage return command is typically stored as a hexadecimal code of "0xD" and end of file is typically stored as "0xA".)	Yes	

4.5 Dividend / Interest for All NFN Instruments (NFN 0050)

This message format should be used to report dividends and interest payments for all NFN instruments. The file must contain one record for each instrument being updated. The records must be 178 characters long, in the following format:

Field	Offset	Length	Format	Description	Required ⁷	Data Validation
Row Header	0	3	Alphanumeric	Defines inbound data format. "DIV" for dividends and interest.	Yes	Field level validations: <ul style="list-style-type: none"> Row Header value is not defined.

⁷ Each row in the NFN batch file must be 178 bytes. Firms may not omit fields. If not required, firms may opt to space fill the field.

Field	Offset	Length	Format	Description	Required ⁷	Data Validation						
						<ul style="list-style-type: none"> Data format does not match the Row Header value. 						
Symbol (pka Fund ID)	3	11	Alphanumeric	<p>Defines the Nasdaq assigned ticker symbol for NFN instrument.</p> <p><u>Note</u>: The NFN processing logic relies on the Symbol field for the NFN Data Service corporate action spin. If the Symbol field needs to be adjusted, Nasdaq recommends that firms cancel and re-enter the distribution record (rather than correcting the record).</p>	Yes	<p>Field level validations:</p> <ul style="list-style-type: none"> Symbol is not defined in system. Symbol status is not set to active. Symbol is not associated with the supported instrument types. Firm not entitled for Symbol. 						
Instrument Type (pka Fund Type, MFQS Instrument Type)	14	2	Alphanumeric	<p>Indicates the type of NFN instrument being priced. Allowable values are:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>MF</td> <td>Mutual Fund</td> </tr> <tr> <td>MM</td> <td>Money Market Fund</td> </tr> </tbody> </table>	Code	Definition	MF	Mutual Fund	MM	Money Market Fund	Yes	<p>Field level validation:</p> <ul style="list-style-type: none"> Instrument Type value is not defined. Instrument Type value reported in record does
Code	Definition											
MF	Mutual Fund											
MM	Money Market Fund											

Field	Offset	Length	Format	Description	Required ⁷	Data Validation																				
				<table border="1"> <tr> <td>UT</td> <td>Unit Investment Trust</td> </tr> <tr> <td>SP</td> <td>Structured Product</td> </tr> <tr> <td>AN</td> <td>Annuity</td> </tr> <tr> <td>AP</td> <td>Alternative Investment Product</td> </tr> <tr> <td>EM</td> <td>Exchange Traded Managed Fund</td> </tr> <tr> <td>CT</td> <td>Collective Investment Trust</td> </tr> <tr> <td>MA</td> <td>Managed Accounts</td> </tr> <tr> <td>SA</td> <td>Separate Accounts</td> </tr> <tr> <td>HF</td> <td>Hedge Fund</td> </tr> <tr> <td>DD</td> <td>Demand Deposit Account</td> </tr> </table>	UT	Unit Investment Trust	SP	Structured Product	AN	Annuity	AP	Alternative Investment Product	EM	Exchange Traded Managed Fund	CT	Collective Investment Trust	MA	Managed Accounts	SA	Separate Accounts	HF	Hedge Fund	DD	Demand Deposit Account		not match the Instrument Type in the NFN listing data base.
UT	Unit Investment Trust																									
SP	Structured Product																									
AN	Annuity																									
AP	Alternative Investment Product																									
EM	Exchange Traded Managed Fund																									
CT	Collective Investment Trust																									
MA	Managed Accounts																									
SA	Separate Accounts																									
HF	Hedge Fund																									
DD	Demand Deposit Account																									
Cash Distribution Type	16	1	Alphanumeric	<p>Indicates the type of cash distribution being reported. The allowable values would be:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>D</td> <td>Cash Dividend (Default for Mutual Funds)</td> </tr> <tr> <td>I</td> <td>Interest Income (Default for UITs)</td> </tr> <tr> <td>S</td> <td>Special Cash Dividend</td> </tr> <tr> <td><space></td> <td>Not applicable, no cash distribution being reported (only stock dividend)</td> </tr> </tbody> </table>	Code	Definition	D	Cash Dividend (Default for Mutual Funds)	I	Interest Income (Default for UITs)	S	Special Cash Dividend	<space>	Not applicable, no cash distribution being reported (only stock dividend)	Yes	<p>Field level validations:</p> <ul style="list-style-type: none"> Cash Distribution Type value is not defined. 										
Code	Definition																									
D	Cash Dividend (Default for Mutual Funds)																									
I	Interest Income (Default for UITs)																									
S	Special Cash Dividend																									
<space>	Not applicable, no cash distribution being reported (only stock dividend)																									

Field	Offset	Length	Format	Description	Required ⁷	Data Validation
				Note: <u>As of the 3rd Quarter 2013</u> , Nasdaq modified the Action processing logic to include the Cash Distribution Type field. If a firm needs to change the Cash Distribution Type, Nasdaq recommends that firms cancel and re-enter the distribution record (rather than correcting the record).		
Total Cash Distribution	17	13	\$\$\$\$\$.dddd	<p>Reflects the total cash dividend or total interest distribution being reported for the NFN instrument.</p> <p>Funds may report the breakdown of cash dividends/ interest distribution in the fields that follow.</p> <p>If not applicable, please submit "NA".</p>	Yes	<p>Price level validations:</p> <ul style="list-style-type: none"> Total Cash Distribution validation based on NAV price parameter: If the Total Cash Dividend as a % of NAV exceeds the NFN system parameter, firm must enter "#" in override field. Total Cash Distribution cannot be zero. <p>Field level validations:</p>

Field	Offset	Length	Format	Description	Required ⁷	Data Validation						
						<ul style="list-style-type: none"> Total Cash Distribution value does not match specification. 						
Total Cash Distribution Override	30	1	Alphanumeric (with special characters)	<p>Indicates if the system should ignore system validations associated with the Total Cash Distribution field. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Total Cash Distribution Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Non-Qualified Cash Distribution	31	13	\$\$\$\$\$.dddd	<p>Reflects the portion of the cash dividend or interest income that is taxed as ordinary income to the shareholder. Please note that this value should be entered as a currency amount (not a percentage).</p> <p>If unavailable, please submit "NA". If space filled, Nasdaq will populate the field as "NA".</p>	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Non-Qualified Cash Distribution value cannot exceed Total Cash Distribution value. Non-Qualified Cash Distribution value does not match specification. 						

Field	Offset	Length	Format	Description	Required ⁷	Data Validation
Qualified Cash Distribution	44	13	\$\$\$\$\$.dddd	<p>Reflects the portion of the cash dividend or interest that is taxed as a qualified dividend to shareholder. Please note that this value should be entered as a currency amount (not a percentage).</p> <p>If unavailable, please submit "NA". If space filled, Nasdaq will populate the field as "NA".</p>	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Qualified Cash Distribution value cannot exceed Total Cash Distribution value. Qualified Cash Distribution value does not match specification.
Tax-Free Cash Distribution	57	13	\$\$\$\$\$.dddd	<p>Reflects the portion of the cash dividend or interest attributable to bonds that is not taxed to the shareholder. Please note that this value should be entered as a currency amount (not a percentage).</p> <p>If unavailable, please submit "NA". If space filled, Nasdaq will populate the field as "NA".</p>	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Tax Free Cash Distribution value cannot exceed Total Cash Distribution value. Tax Free Cash Distribution value does not match specification.

Field	Offset	Length	Format	Description	Required ⁷	Data Validation
Ordinary Foreign Tax Credit	70	13	\$\$\$\$\$.dddd	<p>Reflects the portion of the cash dividend or interest from a foreign corporation that is not "qualified" by the IRS. Please note that this value should be entered as a currency amount (not a percentage).</p> <p>If unavailable, please submit "NA". If space filled, Nasdaq will populate the field as "NA".</p>	No	<p>Field level validations:</p> <ul style="list-style-type: none"> • Ordinary Foreign Tax Credit value cannot exceed Total Cash Distribution value. • Ordinary Foreign Tax Credit value does not match specification.
Qualified Foreign Tax Credit	83	13	\$\$\$\$\$.dddd	<p>Reflects the portion of the cash dividend or interest attributable to qualified foreign corporation as defined by the IRS. Please note that this value should be entered as a currency amount (not a percentage).</p> <p>If unavailable, please submit "NA". If space filled, Nasdaq will populate the field as "NA".</p>	No	<p>Field level validations:</p> <ul style="list-style-type: none"> • Qualified Foreign Tax Credit value cannot exceed Total Cash Distribution value. • Qualified Foreign Tax Credit value does not

Field	Offset	Length	Format	Description	Required ⁷	Data Validation						
						match specification.						
Stock Dividend Ratio	96	11	\$\$\$\$.dddddd	<p>Indicates the stock split/dividend ratio.</p> <p>Examples:</p> <ul style="list-style-type: none"> 2-for-1 stock split should be reported as "0002.000000". 1-for-2 reverse stock split should be reported as "0000.500000". 10% stock dividend would be reported as "0001.100000". <p>If unavailable, please submit "NA".</p> <p>If space filled, Nasdaq will populate the field as "NA".</p>	Yes	<p>Field level validations:</p> <ul style="list-style-type: none"> Stock Dividend cannot be zero. Stock Dividend value does not match specification. 						
Stock Dividend Override	107	1	Alphanumeric	<p>Indicates if the system should ignore validations on the stock dividend fields. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>#</td> <td>Override On</td> </tr> <tr> <td><space></td> <td>Override Off (Default)</td> </tr> </tbody> </table>	Code	Definition	#	Override On	<space>	Override Off (Default)	No	<p>Field level validations:</p> <ul style="list-style-type: none"> Stock Dividend Override value is not defined.
Code	Definition											
#	Override On											
<space>	Override Off (Default)											
Payment Date	108	8	MMDDYYYY	<p>Indicates the payment date for a dividend or income interest.</p> <p>If no payment date, please submit "NA".</p>	Yes	<p>Date validations:</p> <ul style="list-style-type: none"> Payment date is not a valid 						

Field	Offset	Length	Format	Description	Required ⁷	Data Validation
						<p>calendar date.</p> <p>Field level validations:</p> <ul style="list-style-type: none"> • Payment date does not match specification.
Record Date	116	8	MMDDYYYY	Indicates the record date for a dividend or income interest. Indicates the record date for the distribution. Shareholders of the instrument as of this date would receive the distribution.	Yes	<p>Date validations:</p> <ul style="list-style-type: none"> • Record date is not a valid calendar date. <p>Field level validations:</p> <ul style="list-style-type: none"> • Record date does not match specification.
Ex Date	124	8	MMDDYYYY	<p>Indicates the ex date for a dividend or distribution. This is the date that NAV should be adjusted.</p> <p><u>Note:</u> The NFN processing logic relies on the Ex-Date field for the NFN Data Service corporate action spin. If the Ex-Date field needs to be adjusted, Nasdaq recommends that firms cancel and re-enter the distribution record (rather than correcting the record).</p>	Yes	<p>Date validations:</p> <ul style="list-style-type: none"> • Ex-date date is not a valid calendar date. <p>Field level validations:</p>

Field	Offset	Length	Format	Description	Required ⁷	Data Validation								
						<ul style="list-style-type: none"> Ex date does not match specification. 								
Reinvest Date	132	8	MMDDYYYY	<p>Indicates the reinvestment date for dividend and / or distribution.</p> <p>If no reinvestment, please submit "NA".</p>	Yes	<p>Date validations:</p> <ul style="list-style-type: none"> Reinvest date is not a valid calendar date. <p>Field level validations:</p> <ul style="list-style-type: none"> Reinvest date does not match specification. 								
Action	140	1	Alphanumeric	<p>Indicates if the NFN dividend / distribution report is a new entry, corrected entry or cancelled entry. Allowable values are:</p> <table border="1" data-bbox="844 982 1476 1227"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>N</td> <td>New entry</td> </tr> <tr> <td>C</td> <td>Corrected entry</td> </tr> <tr> <td>X</td> <td>Cancelled entry</td> </tr> </tbody> </table> <p><u>Note:</u> Please enter the full record for cancelled and corrected entries.</p>	Code	Definition	N	New entry	C	Corrected entry	X	Cancelled entry	Yes	<p>Field level validations:</p> <ul style="list-style-type: none"> Action value is not defined. Action value is not correct based on prior entries for the symbol, cash distribution type and ex-date combination.
Code	Definition													
N	New entry													
C	Corrected entry													
X	Cancelled entry													

Field	Offset	Length	Format	Description	Required ⁷	Data Validation
				Because the NFN logic is based on the symbol, cash distribution type and ex-date fields, Nasdaq highly recommends that firms enter a Symbol, Cash Distribution Type or Ex-Date correction as two separate entries: a cancellation for the original entry plus a new entry with the corrected information.		Initial entries must be marked as "N". Subsequent / duplicate messages must be marked as "C" or "X".
Entry Date	141	8	MMDDYYYY	Reflects the date on which the dividends and interest were reported to NFN. This field should reflect current date.	Yes	Date validations: <ul style="list-style-type: none"> • Entry date cannot be a future date. • Entry date is not a valid calendar date. • Symbol was not active on entry date. Field level validations: <ul style="list-style-type: none"> • Entry date does not match specification.

Field	Offset	Length	Format	Description	Required ⁷	Data Validation
Currency	149	3	Alphanumeric	Indicates the ISO currency code associated with the NFN price-related fields. For this field, Nasdaq will use ISO 4217 currency alphabetic codes . For NFN 0050, if this field is space filled, Nasdaq will populate the value as assigned in the listing.	No	Field validations: <ul style="list-style-type: none"> Currency reported is not a defined value.
CUSIP	152	9	Alphanumeric	Indicates the unique security identifier as assigned by S&P CUSIP Bureau for NFN instrument.	Yes	Offline validation: <ul style="list-style-type: none"> Nasdaq will compare the CUSIP number reported in this message against the CUSIP number in the NFN system. If the two values do not match, Nasdaq will include the instrument in its mismatched CUSIP report.
Reserved / Filler	161	17	Space filled	Space fill as needed to meet fixed message length requirement.		

NFN Message Types:

Each valuation message string may contain multiple NFN message types. The current 4 NFN message types are:

Code	Description
MFU	Standard Valuation for Mutual Funds, Unit Investment Trusts (UITs), Annuities, Structured Products, Alternative Investment Products (AIPs), NextShares, Collective Investment Trust (CIT), Managed Accounts, Separate Accounts, Hedge Funds, and Demand Deposit Accounts
MMC	Standard Valuation for Money Market Funds
DIV	Dividend Distribution for All Instruments
DST	Capital Distribution for All Instruments

5. Appendices

Appendix A – Current validation parameters for the NFN Valuation Module

The NFN standard system parameters for NFN price data entry are outlined below. Please note that Nasdaq reserves the right to modify system parameters on an as needed basis.

NFN System Validations	Definition	Value	Override Options
NFN System Open Time	The NFN Valuation Module open time. (All entries entered before this time will be rejected.)	8:00 a.m., ET	No.
NFN Close Time	The NFN Valuation Module close time. (All entries entered after this time will be rejected.)	8:00 p.m., ET	No. Firms should report data on T+1 basis if it misses the NFN system deadline.
NAV / Redemption Price	The net change percentage parameter for the NAV and Redemption NAV override prompts.	10.00%	Yes. Firm may enter # in override field to override this price validation.
Offer / Market Price	The net change percentage parameter for the offer / market price for override prompt.	10.00%	Yes. Firm may enter # in override field to override this price validation.
NAV vs. Offer/Market	The percent difference between NAV/Redemption NAV and Offer/Market fields for override prompt.	9.50%	No. This parameter is hard coded.
Total Net Assets	The minimum total net asset amount for override prompt.	\$100,000	Yes. Firm may enter Total Net Asset value as low as \$1 if # in override field.
NAV (Money Market Funds)	The net change percentage parameter for NAV override prompts for money market funds.	10.00%	Yes. Firm may enter # in override field to override this price validation.
Gross 7 Day Yield and Subsidized 7 Day Yield for Money Market Funds	The net change percentage for Subsidized Yield and Gross Yield override prompts.	10.00%	Yes. Firm may enter # in override field to override this price validation.

NFN System Validations	Definition	Value	Override Options
Total Cash Distribution	The percentage of NAV for override prompt.	10.00%	Yes. Firm may enter Total Cash Distribution between 10% and 100% of NAV if # in override field. However, NFN system prohibits firms from entering Total Cash Distribution in excess of NAV.
Stock Dividend Ratio - Lower Level	The minimum stock dividend ratio before override prompt.	0.1 One-for-ten reverse stock split ratio	Yes. Firms may enter stock dividend ratio as low as 0.000001 (One-for-one million reverse stock split ratio) if # in override field.
Stock Dividend Ratio - Higher Level	The maximum stock dividend ratio before override prompt.	100 100-for-one stock split ratio	Yes. Firms may enter stock dividend ratio as high as 999999 (999,999-for-1 stock split ratio) if # in override field.
Short Term Capital Gains	The percentage of NAV/ Redemption Price for override prompt.	7.50%	Yes. Firm may enter Capital Gain Distribution between 7.5% and 100% of NAV if # in override field. However, NFN system prohibits firms from entering Total Cash Distribution in excess of NAV.
Long Term Capital Gains	The percentage of NAV / Redemption Price for override prompt.	7.50%	Yes. Firm may enter Capital Gain Distribution between 7.5% and 100% of NAV if # in override field. However, NFN system prohibits firms from entering Total Cash Distribution in excess of NAV.
Return of Capital (ROC)	The percentage of NAV / Redemption Price for override prompt.	7.50%	Yes. Firm may enter Capital Gain Distribution between 7.5% and 100% of NAV if # in override field. However, NFN system prohibits firms from entering Total Cash Distribution in excess of NAV.

Appendix B – NFN Error Codes

HTTP codes:

Following exceptions would produce HTTP error codes:

401 – “Unauthorized”, Message: `Invalid token entitlement for this call`

400 – “Bad Request”, Message: `Missing format version`

400 – “Bad Request”, Message: `“[Free form message describing an exception] ”` this would cover all errors related to service itself.

400 – “Bad Request”, Message: `ValuationData field is missing or empty`

**This appendix is intended to show the NFN error codes for NFN 0050. Nasdaq reserves the right to add or delete error codes as needed.*

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
All	All		004	TERMINAL NOT AUTHORIZED	Entitlement error - Terminal not authorized for subscriber function. While user is authorized for NFN, he does <u>not</u> have the necessary access rights for the current NFN function. Contact NASDAQ Subscriber Services to update user profile.
All	All		013	SYSTEM UNAVAILABLE	System unavailable - NFN valuation module is unavailable for data entry. NFN valuation module is temporarily unavailable for data entry.
All	All		103	NO FUND ACTIVITY ALLOWED	System unavailable - NFN valuation module is unavailable for all activity. NFN valuation module is temporarily unavailable for any and all activity.

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
All	All		127	MMID NOT ACTIVE	Entitlement error - MPID is not active in NFN system. Entitlement validation is handled at the NFN interface level. Please contact NFN Operations to confirm MPID.
All	All		131	NOT WITHIN ALLOW HRS	System unavailable - NFN valuation module is closed. NFN update cannot be processed because it was received outside of normal operational hours.
All	All		300	INCORRECT FILE DATE	Invalid value - File Date is not equal to NFN system date. NFN system will only process files in which the file date is equal to the NFN system date. Please note that firms should use the "Entry Date" within the individual NFN records to indicate historical data updates.
All	All		301	INVALID FORMAT VERSION	Invalid message format - NFN data format version number is not valid. Through August 17,2018, the supported NFN versions are "0040" and "0050". As of August, 20, 2018, the supported NFN version will be "0050".
Money Market Funds	MMF, MMC	30 Day Day Yield	449	Invalid 30 Day Yield value proposed: ", should be \$\$\$\$.dddd or 'NA '	Invalid field format - 30 Day Yield. 30 Day Yield value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
Money Market Funds	MMF, MMC	30 Day Yield Date	341	30 Day Yield Date cannot be future date	Invalid value - 30 Day Yield Date cannot be a future date. For NFN valuation module, the 30 Day Yield Date must be equal to or less than the NFN system date.
Money Market Funds	MMF, MMC	30 Day Yield Date	342	30 DAY YLD DATE GREATER THAN 1 YR AGO	Invalid value - 30 Day Yield Date cannot be more than 365 days in the past. NFN limits historical data entry and price corrections to one year from system date.
Money Market Funds	MMF, MMC	30 Day Yield Date	343	Invalid 30 Day Yield Date value proposed: ", should be MMDDYYYY or 'NA '	Invalid field format - 30 Day Yield Date. If 30 Day Yield field is populated with numeric value, this Date field must be populated in MMDDYYYY format. If 30 Day Yield field is not populated, this field should be populated as NA or space filled.
Money Market Funds	MMF, MMC	30 Day Yield Date	344	30 Day Yield Date not an actual calendar date.	Invalid value - 30 Day Yield Date is not a valid calendar date. If entered as numeric value, 30 Day Date must be populated in MMDDYYYY format and reflect an actual calendar date.
Money Market Funds	MMF, MMC	30 Day Yield Direction	450	Invalid 30 Day Yield Direction value proposed: ", should be Dash(-) or single space	Invalid field format - 30 Day Yield Direction. Yield direction value should be populated as "-" (Dash) or space. For positive or zero yield, field should be space filled. For negative yield, field should contain "-" (dash).

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
UITs - Debt	MFU	Accrued Interest	255	Invalid Accrued Interest value proposed: '', should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Accrued Interest value does not match specified field format. Accrued interest value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values. (Note: In NFN 0040 version, this field is supported for UITs - Debt only. In NFN 0050 version, this field will also be supported for UITs - Equity, mutual funds, annuities, structured products and AIPs.)
All	DIV, DST	Action	368	Invalid Action value proposed: '', should be X, C Or N	Invalid field format - Action. Required field for NFN 0050 version. Action value does not match specified format or field length. Allowable values are: "N" (New), "C" (Correction) or "X" (Cancellation).
All	DIV, DST	Action	473	INVALID ACTION - DUPLICATE ENTRY	Invalid value - Action. Duplicate record needs to be marked as "C" (Correction) or "X" (Cancellation). Nasdaq received a previous record with same symbol and ex-date via the NFN interface. Subsequent entries for this ex-date must be marked as "C" (Correction) or "X" (Cancellation).
All	DIV, DST	Action	474	INVALID ACTION - NEW ENTRY	Invalid value - Action. No record on file to correct or cancel. Nasdaq did not receive any previous records with the same symbol and ex-date via NFN interface to cancel or correct. To correct the ex-date and/or symbol, firms must enter two records (a cancellation record for the original ex-date/symbol entry and a new record for the corrected ex-date/symbol entry).
Money Market Funds	MMF, MMC	Average Life	441	Invalid Average Life value proposed: '', should be ddd or 'NA '	Invalid field format - Average Life. Required field in NFN 0050 version. Average life must be populated as three digit whole number (000 to 364) or as NA.
Money Market Funds	MMF, MMC	Average Life	442	AVG LIFE MAY NOT EXCEED 364	Invalid value - Average life cannot exceed 365 days. Money markets, by definition, must have an average life of less than one standard year.
Money Market Funds	MMF, MMC	Average Maturity	161	Invalid Average Maturity value proposed: '', should be ddd or 'NA '	Invalid field format - Average Maturity. Required field. Average maturity must be populated as three digit whole number (000 to 364) or as NA.
Money Market Funds	MMF, MMC	Average Maturity	112	AVG MATURITY MAY NOT EXCEED 364	Invalid value - Average maturity cannot exceed 365 days. Money markets, by definition, must have an average maturity of less than one standard year.
Money Market Funds	MMC	Calculation Time	451	Invalid Calculation Time value proposed: '', should be NA or HHMMSS	Invalid field format – Calculation Time. Calculation Time must be reported in HHMMSS format: HH must be 00-24, MM must be 00 to 59, SS must be 00-59. Enter NA if value is not available.

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
All	DIV	Cash Distribution Type	461	Invalid Cash Distribution Type value proposed: ", should be D, I or Single space	Invalid field format - Cash Distribution Type. Required field for NFN 0050 version. Cash Distribution Type value does not match specified format or field length. Allowable values are: "D" (Cash Dividend), "I" (Interest), "S" (Special Cash Dividend) or space (No cash distribution/stock only).
All	DIV	Cash Distribution Type	475	CASH DIST TYPE MISMATCH	Invalid value - Cash Distribution Type does not match message contents. Value must be "D", "S" or "I" if Total Cash Distribution field is populated with numeric value. Value must be populated as "NA".
All	All	Currency	366	INVALID CURRENCY	Invalid field format - Currency. The indicated Currency is not what is indicated in the instrument listing. Currency field should be populated with the appropriate currency code. If this field is left blank or space field the Currency will default to the Currency in the listing.
UITs - Debt	MFU	Current Yield	253	Invalid Current Yield value proposed: ", should be \$\$\$\$.dddd or 'NA '	Invalid field format - Current Yield. Current Yield value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values. (Note: In NFN 0040 version, this field is supported for UITs - Debt only. In NFN 0050 version, this field will also be supported for UITs - Equity, mutual funds, annuities, structured products and AIPs.)
UITs - Debt	MFU	Current Yield Direction	425	Invalid Current Yield Direction value proposed: ", should be Dash(-) or single space	Invalid field format - Current Yield Direction. Yield direction value should be populated as "-" (Dash) or space. For positive or zero yield, field should be space filled. For negative yield, field should contain "-" (dash). While Current Yield is typically associated with UITs - Debt, Nasdaq will also support field for UITs - equity, mutual funds, annuities, structured products and AIPs.
All	All	CUSIP	332	Invalid CUSIP value proposed: ", should be Valid CUSIP without special characters	Invalid field format - CUSIP. Required field. CUSIP must be entered as a 9-byte alphanumeric value (with no spaces or special characters).
All	MFU, MMF, MMC	Daily Dividend Factor	364	DAILY DIV/NAV RANGE	Validation parameter - Daily Dividend Factor exceeds NAV percentage. Daily Dividend is greater than the system validation parameter. Enter # in override field to bypass validation logic.
All	MFU, MMF, MMC	Daily Dividend Factor	372	Invalid Daily Dividend value proposed: ", should be \$\$\$.dddddd or 'NA '	Invalid field format - Daily Dividend Factor. Daily Dividend Factor value does not match specified format or field length. See

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
					field definition for numeric format and allowable non-numeric values.
All	MFU, MMF, MMC	Daily Dividend Factor	373	Daily Dividend cannot be zero	Invalid value - Daily Dividend Factor cannot be zero. Daily Dividend value cannot be zero. Enter NA if value is not available.
All	MFU, MMF, MMC	Daily Dividend Adjustment Indicator	374	Invalid Daily Dividend Adjustment Indicator value proposed: ", should be Y, N or single space	Invalid field format - Daily Dividend Adjustment Indicator. If Daily Dividend field is populated with numeric value, this field should be populated as "Y" or "N". If Daily Dividend field is not populated, this field should be space filled.
Money Market Funds	MMF, MMC	Effective Annualized 7 Day Yield	165	Invalid Effective Annualized 7 Day Yield value proposed: ", should be \$\$\$\$dddd or 'NA '	Invalid field format - Effective Annualized 7 Day Yield. Effective Annualized 7 Day Yield value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
Money Market Funds	MMF, MMC	Effective Annualized 7 Day Yield Direction	448	Invalid Effective Annualized 7 Day Yield Direction value proposed: ", should be Dash(-) or single space	Invalid field format - Effective Annualized 7 Day Yield Direction. Yield direction value should be populated as "-" (Dash) or space. For positive or zero yield, field should be space filled. For negative yield, field should contain "-" (dash).
All	All	Entry Date	214	Invalid Entry Date value proposed, should be MMDDYYYY	Invalid field format - Entry Date. Required field in NFN 0050. Entry Date value does not match specified format or field length. Field must be entered in MMDDYYYY format.
All	All	Entry Date	215	INVALID ENTRY DATE	Invalid value - Entry date is not an actual calendar date. In NFN system, the entry date must be entered in MMDDYYYY format. Nasdaq validates that the Entry Date is an actual calendar date.
All	All	Entry Date	216	Entry Date cannot be future date	Invalid value - Entry date is greater than NFN system date. For NFN valuation module, the Entry Date must be equal to or less than the NFN system date. Firms should use the Record Date, Payment Date, Ex Date and Reinvestment Date fields within the Dividend/Interest and Capital Distribution message formats to relay corporate actions with future effective dates.
All	DIV, DST	Entry Date	347	ENTRY DATE MUST EQUAL TODAY	Invalid value - Entry Date must be equal to NFN system date for Dividend/Interest and Capital Distribution messages only. For the Dividend/Interest and Capital Distribution messages, downstream processing logic is based on the Ex-Date field.
UITs - Debt	MFU	Estimated Long Term Return (ELTR)	254	Invalid ELTR value proposed, should be \$\$\$\$dddd or NA	Invalid field format - Estimated Long Term Return (ELTR). ELTR value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values. (Note: In NFN 0040 version, this field is supported for UITs - Debt

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
					only. In NFN 0050 version, this field will also be supported for UITs - Equity, mutual funds, annuities, structured products and AIPs.)
UITs - Debt	MFU	ELTR Direction	426	Invalid ELTR Direction value proposed: ", should be Dash(-) or single space	Invalid field format - ELTR Direction. Yield direction value should be populated as "-" (Dash) or space. For positive or zero yield, field should be space filled. For negative yield, field should contain "-" (dash). (Note: While ELTR is typically associated with UITs - Debt, Nasdaq will also support field for UITs - equity, mutual funds, annuities, structured products and AIPs in NFN 0050 version.)
All	DIV, DST	Ex Date	237	Invalid Ex Date value proposed: ", should be MMDDYYYY	Invalid field format - Ex Date. Required field for NFN 0050. Ex-Date must be entered in MMDDYYYY format.
All	DIV, DST	Ex Date	348	Ex Date not an actual calendar date	Invalid value - Ex Date is not an actual calendar date. Ex-Date must be entered in MMDDYYYY format and represent an actual calendar date.
All	MFU, MMF, MMC	Footnotes	045	INVALID FOOTNOTE CODE	Invalid value - Footnote code not defined in NFN system. Footnote code is not an alphabetic character or is not a defined character for current use in the NFN system.
All	MFU, MMF, MMC	Footnotes	050	Duplicate footnote codes for entry	Invalid value - Footnote code duplicated. Duplicate footnote codes. Please check footnotes to validate that each code is entered only one time in flagged record.
All	MFU, MMF, MMC	Footnotes	129	INVALID FOR CATEGORY	Invalid value - Footnote code not supported for NFN instrument type. Please refer to the field definition for allowable footnote codes by NFN instrument type.
All	All	NFN Symbol (pka Fund ID, MFQS Symbol)	066	FUND ID IS NOT VALID	Invalid value - NFN Symbol not found. NFN Symbol is not recognized by NFN system. Refer to NFN Symbol Directory for active NFN Symbols.
All	All	NFN Symbol (pka Fund ID MFQS Symbol)	078	MMID NOT IN FUND	Entitlement Error - NFN Symbol not associated with MPID. Firm is not listed in NFN system as being the pricing agent for this NFN Symbol. Contact NFN Operations for assistance.
All	All	NFN Symbol (pka Fund ID MFQS Symbol)	126	FUND NOT ACTIVE	Invalid value - NFN Symbol not active in NFN system. NFN Symbol is not active in NFN system. Contact NFN Operations for current status information.

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
All	MFU, MMF, MMC	NFN Symbol (pka Fund ID MFQS Symbol)	130	INVALID FUNC/FUNDID COMB	Invalid value - NFN Symbol not associated with supported Instrument Type / Instrument Code. For MFL format, NFN Symbol must be registered as mutual fund or annuity to use format. For MFU format, NFN Symbol must be registered as mutual fund, unit investment trust, annuity, structured product, alternative investment product, collective investment trust, managed accounts, separate accounts, hedge funds or demand deposit account to use format. For MO or MMF format, NFN Symbol must be registered as a money market fund to use format.
All	MFU, DIV, DST	Instrument Type (pka Fund Type, MFQS Instrument Type)	311	INVALID FUND TYPE	Validation parameter- Instrument Type value does not match NFN registration module value for symbol. Please refer to NFN Symbol Directory for the Instrument Type value in the NFN Registration module.
All	MFU, DIV, DST	Instrument Type (pka Fund Type, MFQS Instrument Type)	365	Invalid Fund Type value proposed: ", should be AN, AP, MF, MM, SP, EM, CT, MA, SA, HF, DD or UT for message type (MFU, DIV or DST)	Invalid field format - Instrument Type. For MFU format, the allowable Instrument Type values are: MF, UT, AN, AP, SP, CT, MA, SA and HF. For DIV and DST formats, the allowable Instrument Type values are: MF, MM, UT, AN, AP, SP, CT, MA, SA and HF.
Money Market Funds	MMF, MMC	Gross 7 Day Yield	444	Invalid Gross 7 Day Yield value proposed: ", should be \$\$\$\$.dddd or 'NA '	Invalid field format - Gross 7 Day Yield. Required field in NFN 0050 version. Gross 7 Day Yield value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
Money Market Funds	MMF, MMC	Gross 7 Day Yield	445	GROSS YLD CHANGE MORE THAN PARAMETER	Validation parameter- Gross 7 Day Yield net change exceeded NFN validation parameter. Gross 7 Day Yield net change exceeded the system validation parameter. Enter # in override field to bypass validation logic.
Money Market Funds	MMF, MMC	Gross 7 Day Yield Override	447	Invalid Gross 7 Day Yield Override value proposed: ", should be single space or #	Invalid field format - Gross 7 Day Yield Override. Override field can only be populated as "#" or space.
Money Market Funds	MMF, MMC	Gross 7 Day Yield Direction	446	Invalid Gross 7 Day Yield Direction value proposed: ", should be Dash(-) or single space	Invalid field format - Gross Yield Direction. Yield direction value should be populated as "-" (Dash) or space. For positive or zero yield, field should be space filled. For negative yield, field should contain "-" (dash).
All	DST	Long Term Capital Gain	180	Invalid Long Term Gain value proposed: ", should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Long Term Capital Gain. Long Term Capital Gain value does not match specified format or field length. See

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
					field definition for numeric format and allowable non-numeric values.
All	DST	Long Term Capital Gain	486	Long Term Gain cannot be zero	Invalid value - Long Term Capital Gain cannot be zero. Long Term Capital Gains cannot be zero. Enter NA if value is not available.
All	DST	Long Term Capital Gain	219	LT GAIN/NAV RANGE	Validation parameter - Long Term Capital Gain exceeds NAV percentage parameter. Long Term Capital Gain exceeds % of NAV system validation parameter. Enter # in override field to bypass validation logic.
All	DST	Long Term Capital Gain Override	181	Invalid Long Term Gain Override value proposed: ", should be single space or #	Invalid field format - Long Term Capital Gain Override. Override field should be populated as "#" or space.
Mutual Funds (Closed End)	MFU	Market Price Override	185	MARKET PRICE OVER NOT # OR BLANK	Invalid field format - Market Price Override. Override field should be populated as "#" or space.
Mutual Funds and Annuities	MFU	NAV	134	Invalid NAV value proposed: ", should be \$\$\$\$\$.dddddd or 'NA'	Invalid field format - NAV. Required field. NAV does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
All	MFU, MMF, MMC	NAV	376	NAV cannot be zero	Invalid value - NAV cannot be zero. NAV cannot be zero. Enter NA if not available.
Money Market Funds	MMF, MMC	NAV	134	Invalid NAV value proposed, should be \$\$\$\$\$.dddddd or 'NA'	Invalid field format - NAV. Required field. NAV does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
Mutual Funds and Annuities	MFU	NAV	135	NAV GREATER THAN OFFER	Validation parameter - NAV is greater than Offer Price. The NAV must be equal to or less than the Offer Price value in the NFN valuation message. This validation logic is used for Open-End Mutual Funds and Annuities only.
Mutual Funds, UITs, Annuities, Structured Products, AIPs, ETMFs, CITs, Managed Accounts, Separate Accounts, Hedge Funds, Demand Deposit Accounts	MFU	NAV	137	NAV CHANGE GREATER THAN 100%	Validation parameter - NAV net change was greater than 100% on ex-date. On Ex-Date, NFN uses a net change parameter of 100% for NAV validation. Firms must enter a footnote value of S, X or D to trigger this logic. Enter # in override field to bypass validation logic.
All	MFU, MMF, MMC	NAV	138	NAV CHANGE GREATER THAN PARAMETER	Validation parameter - NAV net change exceeded NFN validation parameter. NAV net change exceeded the system validation parameter. The standard % logic will be used unless

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
					there is a distribution footnote code in the message. Enter # in override field to bypass validation logic.
Mutual Funds, UITs, Annuities, Structured Products, AIPs, ETMFs, CITs, Managed Accounts, Separate Accounts, Hedge Funds, Demand Deposit Accounts	MFU	NAV	138	NAV CHANGE GREATER THAN PARAMETER	Validation parameter - NAV net change exceeded NFN validation parameter. NAV net change exceeded the system validation parameter. The standard % logic will be used unless there is a distribution footnote code in the message. Enter # in override field to bypass validation logic.
UITs - Debt and UITs - Equity	MFU	NAV	420	NAV NON-STANDARD FIELD FOR UITs	Invalid value - UITs should use Redemption Price field for daily reporting. NFN system expects UITs and Structured Products to report Redemption Price (rather than Standard NAV).
All	MFU, MMF, MMC	NAV Override	139	Invalid NAV Override value proposed: ", should be single space or #	Invalid field value - NAV Override. Override field can only be populated as "#" or space.
Mutual Funds and Annuities	MFU	NAV Override	139	Invalid NAV Override value proposed: ", should be single space or #	Invalid field value - NAV Override. Override field can only be populated as "#" or space.
All	DIV	Non-Qualified Cash Distribution	462	Invalid Non Qualified Cash Distribution value proposed: ", should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Non-Qualified Cash Distribution. Non-Qualified Cash Distribution value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
All	DIV	Non-Qualified Cash Distribution	463	NON-QUAL DIST/TOTAL CASH DIST	Validation parameter- Non-Qualified Cash Distribution cannot exceed Total Cash Distribution. NFN system does not allow the Non-Qualified Cash Distribution value to exceed the Total Cash Distribution value. Please verify amounts.
Mutual Funds, UITs, Annuities, Structured Products, AIPs, ETMFs, CITs, Separate Accounts, Hedge Funds, Demand Deposit Accounts	MFU	Offer/Market Price	401	OFF/MKT VS NAV GREATER THAN PARAMETER	Validation parameter - Difference between NAV and Offer/Market Price is more than allowable % parameter. In NFN 0050 version, this validation logic applies to all Mutual Funds, Unit Investment Trusts and Annuities. NFN system expects that the <u>absolute</u> difference between NAV and Offer Price will not exceed a set % parameter.
Mutual Funds, UITs, Annuities, Structured Products, AIPs, ETMFs, CITs, Managed Accounts, Separate Accounts, Hedge	MFU	Offer/Market Price	402	Invalid Offer / Market Price value proposed: ", should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Offer / Market Price. Required field. For NFN 0050 version, the Offer / Market Price value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
Funds, Demand Deposit Accounts					
Mutual Funds, UITs, Annuities, Structured Products, AIPs, ETMFs, CITs, Separate Accounts, and Hedge Funds, Demand Deposit Accounts	MFU	Offer/Market Price	403	OFF/MKT CHANGE GREATER THAN 100%	Validation parameter - Offer / Market price net change was greater than 100% on ex-date. On Ex-Date, NFN uses a net change parameter of 100% for Offer / Market Price validation. Firms must enter a footnote value of S, X or D to trigger this logic. Enter # in override field to bypass validation logic.
Mutual Funds, UITs, Annuities, Structured Products, AIPs, ETMFs, CITs, Separate Accounts, and Hedge Funds, Demand Deposit Accounts	MFU	Offer/Market Price	404	OFF/MKT CHANGE GREATER THAN PARAMETER	Validation parameter - Offer / Market Price net change exceeded percentage parameter. Offer / Market Price net change exceeded the system validation parameter. Please note that the Offer / Market Price validation uses the same % parameter as NAV. The standard % logic will be used unless there is a distribution footnote code in the message. Enter # in override field to bypass validation logic.
Mutual Funds, UITs, Annuities, Structured Products, AIPs, ETMFs, CITs, Managed Accounts, Separate Accounts, and Hedge Funds; Demand Deposit Accounts	MFU	Offer/Market Price	406	OFF/MKT MAY NOT BE ZERO	Invalid value – Offer / Market Price. Offer / Market Price cannot be zero. Enter NA if not available.
Mutual Funds, UITs, Annuities, Structured Products, AIPs, ETMFs, CITs, Managed Accounts, Separate Accounts, and Hedge Funds, Demand Deposit Accounts	MFU	Offer/Market Price Override	405	Invalid Offer / Market Price Override value proposed: ", should be single space or #	Invalid field format - Offer / Market Price Override. Override field should be populated as "#" or space.
All	DIV	Ordinary Foreign Tax Credit	468	Invalid Ordinary Foreign Tax Credit value proposed: ", should be \$\$\$\$\$.dddd or 'NA '	Invalid field format - Ordinary Foreign Tax Credit. Ordinary Foreign Tax Credit value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
All	DIV	Ordinary Foreign Tax Credit	469	ORD FOREIGN CREDIT/TOTAL CASH DIST	Validation parameter - Ordinary Foreign Tax Credit cannot exceed Total Cash Distribution. NFN system does not allow the

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
					Ordinary Foreign Tax Credit value to exceed the Total Cash Distribution value. Please verify amounts.
All	DIV, DST	Payment Date	233	Payment Date not an actual calendar date. Invalid Payment Date value proposed: "", should be MMDDYYYY or NA with 6 spaces	Invalid field format - Payment Date. Payment Date value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
All	DIV, DST	Payment Date	234	Invalid Payment Date value proposed: "", should be MMDDYYYY or NA with 6 spaces	Invalid value - Payment Date is not an actual calendar date. If entered as numeric value, Payment Date must be enter in MMDDYYYY format and reflect an actual calendar date.
All	DIV	Qualified Cash Distribution	464	Invalid Cash Distribution Qualified value proposed: "", should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Qualified Cash Distribution. Qualified Cash Distribution value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
All	DIV	Qualified Cash Distribution	465	QUAL CASH DIST/TOTAL CASH DIST	Validation parameter - Qualified Cash Distribution cannot exceed Total Cash Distribution. NFN system does not allow the Qualified Cash Distribution value to exceed the Total Cash Distribution value. Please verify amounts.
All	DIV	Qualified Foreign Tax Credit	470	Invalid Qualified Foreign Tax Credit value proposed: "", should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Qualified Foreign Tax Credit. Qualified Foreign Tax Credit value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
All	DIV	Qualified Foreign Tax Credit	471	QUAL FOREIGN CREDIT/TOTAL CASH DIST	Validation parameter - Qualified Foreign Tax Credit cannot exceed Total Cash Distribution. NFN system does not allow the Qualified Foreign Tax Credit value to exceed the Total Cash Distribution value. Please verify amounts.
All	DIV, DST	Record Date	235	Record Date not an actual calendar date. Invalid Record Date value proposed: "", should be MMDDYYYY	Invalid field format - Record Date. Record Date value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
All	DIV, DST	Record Date	236	Invalid Record Date value proposed: "", should be MMDDYYYY	Invalid value - Record Date is not an actual calendar date. If entered as numeric value, Record Date must be entered in MMDDYYYY format and reflect an actual calendar date.

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
Mutual Funds, Annuities, Structured Products, AIPs, and ETMFs	MFU	Redemption Price	400	Redemption Non-Standard Field	Invalid value - Mutual Funds and Annuities should use NAV field for daily reporting. NFN system expects Mutual Funds and Annuities to report NAV (rather than Redemption Price).
UITs - Debt and UITs - Equity	MFU	Redemption Price	421	Invalid Redemption NAV value proposed: ", should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Redemption Price. New code for NFN 0050 version. Redemption Price does not match specified format or field length. See field definition for numeric format and allowable non-numeric values. (Note: In NFN 0040 version, firms would receive reject code 134 for this validation error.)
UITs - Debt and UITs - Equity	MFU	Redemption Price	422	REDEMPTION CHANGE GREATER THAN 100%	Validation parameter - Redemption Price net change was greater than 100% on ex-date. New code for NFN 0050 version. On Ex-Date, NFN uses a net change parameter of 100% for Redemption Price validation. Firms must enter a footnote value of S, X or D to trigger this logic. Enter # in override field to bypass validation logic. (Note: In NFN 0040 version, firms would receive reject code 137 for this validation error.)
UITs - Debt and UITs - Equity	MFU	Redemption Price	423	REDEMPTION CHANGE GR THAN PARAMETER	Validation parameter - Redemption Price net change exceeded NFN validation parameter. New code for NFN 0050 version. Redemption Price net change exceeded the system validation parameter. The standard % logic will be used unless there is a distribution footnote code in the message. Enter # in override field to bypass validation logic. (Note: In NFN 0040 version, firms would receive reject code 138 for this validation error.)
UITs - Debt and UITs - Equity	MFU	Redemption Price	427	REDEMPTION MAY NOT BE ZERO	Invalid value – Redemption Price. Redemption Price cannot be zero. Enter NA if not available.
UITs - Debt and UITs - Equity	MFU	Redemption Price	428	REDEMPTION GREATER THAN OFFER	Validation parameter – Redemption Price is greater than Offer Price. The Redemption Price must be equal to or less than the Offer Price value in the NFN valuation message. This validation logic is used for UITs only.
UITs - Debt and UITs - Equity	MFU	Redemption Price Override	424	Invalid Redemption Price Override value proposed: ", should be single space or #	Invalid field format - Redemption Price Override. Override field should be populated as "#" or space.
All	DIV, DST	Reinvest Date	345	Invalid Reinvest Date value proposed: ", should be MMDDYYYY or 'NA ' Reinvest Date not an actual calendar date.	Invalid field format - Reinvest Date. Reinvest Date value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
All	DIV, DST	Reinvest Date	346	INVALID REINVEST DATE	Invalid value - Reinvest Date is not an actual calendar date. If entered as numeric value, Reinvest Date must be entered in MMDDYYYY format and reflect an actual calendar date.
All	MFU, MMF, MMC	Reporting Type	370	Invalid Reporting Type value proposed: ", should be I or R	Invalid field format - Reporting Type. Required field in NFN 0050. For Reporting Type, the allowable values are "I" (Intra-day) and "R" (end of day). Unless the fund family plans to price multiple times each day, it should enter "R".
All	DST	Return of Capital (ROC)	480	Invalid Return of Capital value proposed: ", should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Return of Capital (ROC). Return of Capital value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
All	DST	Return of Capital (ROC)	481	Return of Capital cannot be zero	Invalid value - Return of Capital (ROC) cannot be zero. Return of Capital cannot be zero. Enter NA if value is not available.
All	DST	Return of Capital (ROC)	483	ROC/NAV RANGE	Invalid value - Return of Capital (ROC) exceeds NAV percentage parameter. Please note that Nasdaq uses the same NAV % parameter for all capital distribution fields including ROC. Enter # in override field to bypass validation logic.
All	DST	ROC Override	484	Invalid Return of Capital Override value proposed: ", should be single space or #	Invalid field format - ROC Override. Override field should be populated as "#" or space.
All	All	Row Header	121	INVALID FORMAT	Invalid message format - Data format does not match the row header value. Please refer to the NFN inbound file specification documents for data field layout and size.
Mutual Funds, UITs, Annuities, Structured Products, AIPs, ETMFs, CITs, Managed Accounts, Separate Accounts, and Hedge Funds, Demand Deposit Accounts	MFU	Row Header	360	Message has invalid Length must be 178 characters	Invalid message format - Wrong row length for new Valuation - Mutual Fund, UIT, Annuity message format. The MFU message length should be 178 bytes.
Money Market Funds	MMF	Row Header	361	Message has invalid Length must be 178 characters.	Invalid message format - Wrong row length for Valuation - Money Market Fund record. The MMF message length should be 178 bytes.
Money Market Funds	MMC	Row Header	452	Message has invalid Length must be 178 characters.	Invalid message format - Wrong row length for Valuation - Money Market Fund w/Calculation Time record. The MMC message length should be 178 bytes.
All	DIV	Row Header	362	Message has invalid Length must be 178 characters.	Invalid message format - Wrong row length for Dividends / Interest. The DIV message length should be 178 bytes.

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
All	DST	Row Header	363	Format Error: Message has invalid Length must be 178 characters.	Invalid message format - Wrong row length for Capital Distributions. The DST message length should be 180 bytes.
All	All	Row Header	005	INVALID FUNCTION CODE	Invalid value - Row header value is not defined for NFN 0040 or NFN 0050. Required field. For NFN 0040, the allowable row header values are: MFL, MO, UTD and UTE. For NFN 0050, the allowable row header values will be: MFU, MMF, DIV and DST.
All	DST	Short Term Capital Gain	217	ST GAIN/NAV RANGE	Validation parameter - Short Term Capital Gain exceeds NAV percentage parameter. Short Term Capital Gain exceeds % of NAV system validation parameter. Please note that Nasdaq uses the same % of NAV parameter for all Capital Distribution fields. Enter # in override field to bypass validation logic.
All	DST	Short Term Capital Gain	176	Invalid Short Term Gain value proposed: ", should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Short Term Capital Gain. Short Term Capital Gain value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
All	DST	Short Term Capital Gain	485	Short Term Gain cannot be zero	Invalid value - Short Term Capital Gain cannot be zero. Short Term Capital Gains cannot be zero. Enter NA if value is not available.
All	DST	Short Term Capital Gain Override	177	Invalid Short Term Gain Override value proposed: ", should be single space or #	Invalid field format - Short Term Capital Gain Override. Override field should be populated as "#" or space.
All	DIV	Stock Dividend	153	Stock Dividend cannot be zero	Invalid value - Stock dividend cannot be zero. Stock Dividend cannot be zero. Enter NA if value is not available.
All	DIV	Stock Dividend	154	Invalid Stock Dividend value proposed: ", should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Stock Dividend. Stock Dividend value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
All	DIV	Stock Dividend	472	STOCK DIV GR THAN PARAMETERS	Validation parameter - Stock dividend ratio is outside validation parameters. In NFN 0050 version, Stock Dividend field will be subject to minimum and maximum validation parameters. Enter # in override field to bypass validation logic.
All	DIV	Stock Dividend Override	460	Invalid Stock Dividend Override value proposed: ", should be single space or #	Invalid field format - Stock Dividend Override. Override field should be populated as "#" or space.
Money Market Funds	MMF, MMC	Subsidized 7 Day Yield	162	Invalid Subsidized 7 Day Yield value proposed: ", should be \$\$\$\$\$.dddd or 'NA '	Invalid field format - Subsidized 7 Day Yield. Required field in NFN 0050 version. Subsidized 7 Day Yield value does not match

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
					specified format or field length. See field definition for numeric format and allowable non-numeric values.
Money Market Funds	MMF, MMC	Subsidized 7 Day Yield	164	SUBSIDIZED YLD GR THAN PARAMETER	Validation parameter- Subsidized 7 Day Yield net change exceeded NFN validation parameter. Subsidized 7 Day Yield net change exceeded the system validation parameter. Enter # in override field to bypass validation logic.
Money Market Funds	MMF, MMC	Subsidized 7 Day Yield Override	163	Invalid Subsidized 7 Day Yield Override value proposed: ", should be single space or #	Invalid field format - Subsidized 7 Day Yield Override. Override field can only be populated as "#" or space.
Money Market Funds	MMF, MMC	Subsidized 7 Day Yield Direction	443	Invalid Subsidized 7 Day Yield Direction value proposed: ", should be Dash(-) or single space	Invalid field format - Subsidized 7 Day Yield Direction. Yield direction value should be populated as "-" (Dash) or space. For positive or zero yield, field should be space filled. For negative yield, field should contain "-" (dash).
All	DIV	Tax Free Cash Distribution	466	Invalid Tax Free Cash Distribution value proposed: ", should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Tax Free Cash Distribution. Tax Free Cash Distribution value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
All	DIV	Tax Free Cash Distribution	467	TAX FREE DIST/TOTAL CASH DIST	Validation parameter - Tax Free Cash Distribution cannot exceed Total Cash Distribution. NFN system does not allow the Tax Free Cash Distribution value to exceed the Total Cash Distribution value. Please verify amounts.
All	DIV	Total Cash Distribution	100	TOTAL CASH DIST/NAV RANGE	Validation parameter- Total Cash Distribution exceeds NAV percentage parameter. Total Cash Distribution is greater than the system validation parameter. Please note that NFN uses the most recent NAV / Redemption Price entry for this validation. Enter # in override field to bypass validation logic.
All	DIV	Total Cash Distribution	145	Total Cash Distribution cannot be zero	Invalid value - Total Cash Distribution cannot be zero. Cash Dividend / Total Cash Distribution cannot be zero. Enter NA if value is not available.
All	DIV	Total Cash Distribution	146	Invalid Total Cash Distribution value proposed: ", should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Total Cash Distribution. Cash Dividend / Total Cash Distribution value does not match specified format or field length. Refer to NFN inbound file specification document for proper field format.
All	DIV	Total Cash Distribution Override	148	Invalid Total Cash Distribution Override value proposed: ", should be single space or #	Invalid field format - Total Cash Distribution Override. Override field should be populated as "#" or space.

Instrument Type(s)	0050 Message Format(s)	Field	Rej Code	Displayed Error Code	Description
All	MFU, MMF, MMC	Total Net Assets (pka Assets)	166	Invalid Total Net Assets value proposed: ", should be 15 Digits or 'NA '	Invalid field format - Total Net Assets does not match specified field format. Assets / Total Net Assets value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values. (Note: UITs may only report Total Net Assets via NFN 0050 formats.)
All	MFU, MMF, MMC	Total Net Assets (pka Assets)	221	Total Net Assets cannot be zero	Invalid value - Total New Assets cannot be zero. Assets / Total Net Assets cannot be zero. Enter NA if value is not available. (Note: UITs may only report Total Net Assets via NFN 0050 formats.)
All	MFU, MMF, MMC	Total Net Assets (pka Assets)	371	TOTAL NET ASSETS LESS THAN PARAMETER	Validation parameter - Total Net Assets is less than dollar threshold parameter. Assets / Total Net Assets is less than the system validation parameter. Enter # in override field to bypass validation logic.
All	MFU, MMF, MMC	Total Net Assets Override (pka Assets Override)	375	Invalid Total Net Assets Override value proposed: ", should be single space or #	Invalid field format - Total Net Assets Override. Override field can only be populated as "#" or space.
All	DST	Unallocated Distributions	186	Invalid Unallocated Distributions value proposed: ", should be \$\$\$\$\$.dddddd or 'NA '.	Invalid field format - Unallocated Distributions. Unallocated Distributions value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values.
All	DST	Unallocated Distributions	220	Unallocated Distributions cannot be zero	Invalid value - Unallocated Distributions cannot be zero. Unallocated Distributions cannot be zero. Enter NA if value is not available.
UITs - Debt and UITs - Equity	MFU	Wrap Price	252	Invalid Wrap Price value proposed: ", should be \$\$\$\$\$.dddddd or 'NA '	Invalid field format - Wrap Price. Wrap Price value does not match specified format or field length. See field definition for numeric format and allowable non-numeric values. (Note: In NFN 0040 version, this field is supported for UITs only. In NFN 0050 version, this field will also be supported for mutual funds, annuities, structured products and AIPs.)

Appendix C – Documentation Control Log

Date	Version Information
June 24, 2019	Initial release of NFN Pricing Web API specification.
November 22, 2021	NFN Pricing Web API is updated to NFN Pricing Web REST API. Introduce new URL, new service process, and Multi Factor Authentication to logon.