Nasdaq Fund Network (NFN) Web Service Reports

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Overview

Web Service Reports

The NFN Daily List is a web-based data product offered by Nasdaq Information, LLC. The NFN Daily List is designed to provide the market data community with issue level security details for NFN instruments. This Nasdaq product includes NFN-related reports:

- 1. **NFN Daily List:** This component provides advance notification of NFN registration actions such as new instruments, deleted instruments and instrument attribute changes. For the Daily List component, Nasdaq will generate two daily files:
 - a. **Daily List Advance Notifications:** This file will include all NFN registration actions that were approved by NFN Operations on the current business date for a future System effective date.
 - b. **Daily List Next Business Day Changes:** This file provides only those NFN registration actions scheduled to take effect on the next business date.
- 2. **Instrument Directory:** This component file provides security level information for all active instruments in the NFN system at the beginning of the current business day.
- 3. **Root Directory**: This component provides fund level information for instruments as provided by NFN Issuers. This directory updates every day at the beginning of the current business day.
- 4. **Issuer Directory:** This component provides a list of all active NFN issuers and the applicable issuer data such as Issuer Description, Assets Under Management, Investor Relations contact information, etc. This directory updates in real time.
- Documentation Posting Service: Nasdaq allows NFN issuers to post prospectus, statements of additional information (SAI), semi-annual and annual reports, and money market monthly financial statements in PDF format for market data vendors to access. Each day, Nasdaq will generate a file defining new NFN documents available for download.
- 6. **Ex Date Report:** Nasdaq allows NFN pricing agents to enter advance notifications of Dividend/Interest and Capital Distribution actions. To ensure that the market data community can access these corporate actions on the appropriate ex-date, Nasdaq plans to add an Ex-Date report to the NFN web product.

Please note that the NFN Daily List includes CUSIP numbers. Firms must have an agreement in place with the CUSIP Bureau and appropriate NFN entitlement token in order to see the CUSIP values within the NFN files.

Secured Website Access

Nasdaq offers NFN website access to NFN Daily List subscribers. Through the NFN website, firms may download all the reports listed above. In addition, Nasdaq will offer the following functionality via the NFN website:

- Search capabilities for the Instrument Directory and Daily List products.
- Ability to view intra-day NFN reporting statistics.
- Ability to download monthly NFN reports such as Instrument counts by pricing agent, Instrument counts by issuer, Updates by instrument type and Updates by time interval.

Firms should be able to log into the NFN website at <u>https://nfn.nasdaq.com</u> to take advantage of the new functionality. For details on the NFN website functionality, please reach out to <u>NFNOps@nasdaq.com</u>.

Architecture

General Information

As of **November 22, 2021**, Nasdaq will allow NFN – Nasdaq Fund Network users to use JWT bearer token to call valuation reports.

In addition, NFN adopted MFA – Multi-Factor Authentication to access the NFN Web Service. NFN Data Service Valuation Report users no longer require valid security certificate. Please contact <u>Nasdaq Trading Services</u> at +1 212 231 5180 if you need assistance enrolling into MFA or password reset.

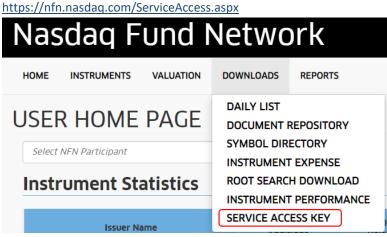
Please visit <u>https://nfn.nasdaq.com</u> and follow instruction to enroll in MFA logon.



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 ightarrow Service Access Key page



- 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 ACCE	SS KEY	
Select NFN Participant	•	
User Name		
Current Active Key	neJ8c	p==
Expiration Date	11/9/2022	
By pressing this button you will inv	Generate Service Access Key	
ly pressing this button you will delete Access Key for selected user.		Delete Access Key

Second, to generate temporary JWT token:

- End point URL: https://nfn.nasdaq.com/servicecall/tempsession
- 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":"eyJhbGciOiJodHRwOi8vd3d3LnczLm9yZy8yMDAxLzA0L3htbGRzaWctbW9yZSNobWFjLXNoYTI1NiI
 sInR5cCl6lkpXVCJ9.eyJsb2FkIjoiZTI2SIVIdHNMNIBxbC9veGMvaHp6WDhCMWVNVm8ydGRaVFA5YkNlc1NR
 S0pFbnpyWExJanVBK282RE9XR085ciJ9.L9ZjysPJgB9tiYtuDAcUdFTSxPIITpUTMnc_QBovH-M"}
- Temporary token will expire in 30 minutes of inactivity

The NFN Registration Service data files will be accessible to subscribers via Secured Web Service. In order to access the files, NFN Daily List subscribers must have a valid access key, user ID and password from Nasdaq.

Nasdaq strongly recommends that firms create web service calls to retrieve the NFN Daily List and NFN Instrument Directory files.

Nasdaq has modified the authentication process for fetching files from the NFN Secure Web Service.

All programmatically generated calls should contain client access key issued by Nasdaq

For security reasons, Nasdaq recommends that firms access the NFN web services via "POST" (user credentials passed via form post) method. The following is an example call that can be used to retrieve files:

Sample code calls

The following is an example call that can be used to retrieve files:

Sample code call in Powershell:

Add-Type -AssemblyName System.Web

\$username = "******"

\$password = "********

\$url="https://nfn.nasdaq.com/servicecall/tempsession"

\$body = @{}

\$body.add("username",\$username)

\$body.add("password",\$password)

\$body.add("accesskey",\$accesskey)

It is assumed that correct credentials used no error checking is provided

\$response = (Invoke-WebRequest -Uri \$url -ContentType "application/x-www-form-urlencoded" -Body \$body Method POST -UseBasicParsing).Content | ConvertFrom-Json

\$jwt = \$response.data

##Write-Output \$jwt

\$dict=@{}

\$dict.add("Content-Type", "application/json")

\$dict.add("Authorization", [string]::Format("Bearer {0}", \$jwt))

curl -Headers \$dict "https://nfn.nasdaq.com/servicecall/InstrumentDirectory.ashx?Date=11-29-2010&Type=pipe " -o "c:\temp\temp.txt"

Sample code call in Python

Imports

import requests

import json

Authenticate

url_new = "https://nfn.nasdaq.com/servicecall/tempsession"

payload = {'username': username, 'password': password, 'accesskey': accesskey}

headers = {'Content-Type': 'application/x-www-form-urlencoded'}

response = requests.post(url_new, data=payload, headers=headers)

#extract JWT

data = json.loads(response.text)

jwt_token=data['data']

url='https://nfn.nasdaq.com/servicecall/DLNextDay.ashx?type=CSV'

headers = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' + jwt_token}

response = requests.request('GET', url, headers=headers)

Work with response

print(response.text)

In the sample code above, clients need to make the necessary adjustments in the highlighted text. For example, client should replace username and password with their unique assigned logon credentials from Nasdaq. Clients also need to present an Access key. Clients should replace the code report parameters as needed.

End Point: RefreshKey

- NFN has added an endpoint for Users to refresh their Service Access Key via POST.
- To Create initial Access key user still needs install TOTP app on the phone and generate Access key using same process they are using now.
- New end point is: <u>https://nfn.nasdaq.com/servicecall/refreshkey</u>.
- In order to use endpoint above, the user must establish session by Posting username, password, VALID not Expired Access Key (<u>https://nfn.nasdaq.com//servicecall/tempsession</u>)
- No parameters post to <u>https://nfn.nasdaq.com/servicecall/refreshkey</u> should be done. Post should have Authorization header with Valid not Expired bearer JWT token generated in temp session call.

In response user will receive following data:

{

"Key": "1IOX0Uvrhx0l8iHbv0k79N3clmV3b0RdUdmP1Adt5DLRqW8kv6tTgi9PPAHvRR3Wg7STtG7/Ohnu+zXJ0wC GbQ==",

"Expired": "2024-02-01T15:04:09.5092681-05:00"

}

IMPORTANT NOTES:

- This will need to be done by the user <u>PRIOR</u> to the current Access Key expiring. If the current key has expired the user will have to log in to <u>https://nfn.nasdaq.com</u> using MFA and regenerate the Access Key manually.
- Once refreshed, the previous Access Key will be invalidated. If the user did not save new Access Key, the user will have to login to https://nfn.nasdaq.com using MFA and retrieve/regenerate the Access Key manually.
- Once the new Access Key is generated, the temporary session used to do so will be terminated. The user will need to re-establish new session using new Access key.

Hours of Operation

The NFN web service reports outlined in this document are available for download from Monday mornings at 12:00 a.m., Eastern Time (ET) through Friday evenings at 11 p.m., ET.

The NFN posting times for each report are as follows:

Report Name	Initial Posting Time	Final Posting Time	Notes
NFN Daily Lists – All	Between 11:00 a.m., ET	6:00 p.m. <i>,</i> ET	Nasdaq attempts to post
Versions	and 1 p.m., ET		file by 12 noon, ET. After
			initial posting, Nasdaq
			attempts to limit the NFN
			Daily List changes to
			corrections only.
Instrument Directory	7:00 a.m., ET		Since the NFN Symbol
			Directory contains only
			active instruments, it is
			rare for the contents to
			change intraday.
Ex-Date Report	8:00 a.m., ET	8:05 p.m. <i>,</i> ET	Nasdaq dynamically
			updates the Ex-Date
			report as pricing agents
			enter dividend and capital
			distribution data into the
			NFN system. For the most
			complete data, Nasdaq
			recommends that firms
			pull the report after 8:05
			p.m., ET

Release Notes

Upcoming Changes

There are no upcoming changes as of this update (December 20, 2023).

Past Changes

On or about April 24, 2023, Nasdaq will add the Distribution Frequency value indicated below:

Code	Value
D	Distributes on Termination

NFN Daily List(s)

Web Service Parameters

To retrieve the NFN Directory, Web Service Users shall need to enter a call with the following parameters:

- Daily List File Name: As noted below, Nasdaq offers two versions of the NFN Daily List. User should specify "DLAdvance" or "DLNextDay".
- Date of Daily List: Data should be entered in MM-DD-YYYY or MM/DD/YYYY format.

- Symbol for Daily List: Data should be 5-11 characters, following the symbol format requirements.
- File Type: Data should indicate requested file format. Options: "XML" for XML formatted text, "pipe" for pipe (|) delimited text, "CSV" for CSV formatted text, or "JSON" for a JSON format.

https://nfn.nasdaq.com/servicecall/DLAdvance.ashx?Date=MM-DD-YYYY&Type=pipe

https://nfn.nasdaq.com/servicecall/DLNextDay.ashx?Date=MM-DD-YYYY&Type=pipe

https://nfn.nasdaq.com/servicecall/DLAdvance.ashx?Symbol=XXXXXXXXXXXXX&Type=pipe

https://nfn.nasdaq.com/servicecall/DLNextDay.ashx?Symbol=XXXXXXXXXXXXX&Type=pipe

https://nfn.nasdaq.com/servicecall/DLAdvance.ashx?date=MM-DD-YYYY&type=pipe&symbol=XXXXXXXXXXXX

https://www.nfn.nasdaq.com/servicecall/DLNextDay.ashx?date=MM-DD-YYYY&type=pipe&symbol=XXXXXXXXXXX

NFN Daily List File Format

Each business day, Nasdaq will post two NFN Daily List files with the same basic file format:

- NFN Daily List Advance Notifications: This file will include all NFN registration actions that were approved by NFN Operations on the current business date regardless of the effective date. This advance notification file will be stored as a pipe-delimited text file. For the Web Service file name parameter, please use DLAdvance.
- NFN Daily List Next Business Day Changes: This file provides only those NFN registration actions scheduled to take effect on the next business day. This next day file will be stored as a pipe-delimited text file. For the Web Service file name parameter, please use DLNextDay.

The file format for both files will be the same. The NFN Daily List files will include a message header row with the field headings. Following the message header row, the individual security-level records will be sorted in ascending order by System Effective Date and then ascending alphabetic order by Symbol field.

As the last record in the file, the system will provide the Web Service parameters as well as the Note for the Day.

Data Field	Field Format	Description	
Posting Date	Date, MM/DD/YYYY	Denotes the date on which the NFN Daily List record was generated. Date field is stored in MM/DD/YYYY format.	
Posting Time	Time, HHMMSS	Denotes the time that the NFN Daily List entry was generated or last updated. The time will be stated in HHMMSS format. The time is based on US Eastern Time.	
System Effective Date	Date, MM/DD/YYYY	Denotes the date that the NFN instrument registration change will be effective in the NFN system. Date field is stored in MM/DD/YYYY format.	
Event Code	Text up to 50 bytes	Indicates the type of registration action associated with the NFN instrument. Allowable values are:	
		Event Codes Addition	
		Deletion	

Security Level Details

Data Field	Field Format	Description	
		Replacement	
		Attribute Char	nge
		Restore	
		Withdraw – Addition	
		Withdraw – De	
		Withdraw – Re	
			tribute Change
		Withdraw – Re	_
Issuer Corporate Action	Date, MM/DD/YYYY		te that the NFN issuer will enact (enacted)
Date		the instrument	change action on its side. Date field is DD/YYYY format.
			r Corporate Action Date shall be populated ange and Deletion event codes only.
Instrument Type / Tier	2 bytes, alphanumeric	Denotes the NF	N security class and listing tier for the
– Current		instrument at th	ne time of the Daily List posting. Allowable
		values are:	
		Code	Value
		MF	Mutual Fund – News Media List
		MS	Mutual Fund – Supplemental List
		\$\$	Money Market Fund – News Media
			List
		\$S	Money Market Fund – Supplemental
			List
		US	Unit Investment Trust (UIT)
		AN	Annuity
		SP	Structured Product
		AP	Alternative Investment Product (AIP)
		EM	NextShares Exchange Traded Managed Fund
		MA	Managed Accounts
		СТ	Collective Investment Trust (CIT)
		SA	Separate Accounts
		HF	Hedge Fund
		DD	Demand Deposit Account
		 For add popula For rep NFN iss in the s For att the NF posting For del 	olacement actions, this field will reflect the sue type for the instrument being replaced system. ribute change actions, this field will reflect N issue type in system on the Daily List g date. letion actions, this field will reflect the NFN ype for the instrument being removed from

Data Field	Field Format	Description		
		For restore actions, this field will not be		
		populated.		
Instrument Type / Tier	2 bytes, alphanumeric	Denotes the NF	N security class and listing tier for the	
– New			f the System Effective Date. Allowable	
		Code	Value	
		MF	Mutual Fund – News Media List	
		MS	Mutual Fund – Supplemental List	
		\$\$	Money Market Fund – News Media List	
		\$S	Money Market Fund – Supplemental List	
		US	Unit Investment Trust (UIT)	
		AN	Annuity	
		SP	Structured Product	
		AP	Alternative Investment Product (AIP)	
		EM	NextShares Exchange Traded Managed	
			Fund	
		MA	Managed Accounts	
		СТ	Collective Investment Trust (CIT)	
		SA	Separate Accounts	
		HF	Hedge Fund	
		DD	Demand Deposit Account	
		 issue trissystem For rep NFN issister For attite system For attite NF For del popula For ressissue trissue trite NF 	blacement actions, this field will reflect the sue type for the instrument being added to stem. ribute change actions, this field will reflect N issue type as of the System effective date. letion actions, this field will not be ited. tore actions, this field will reflect the NFN ype for the instrument being reinstated to N system.	
Instrument Code –	1 byte, alphanumeric	Indicates the in-	vestment strategy or sub-category for the	
Current			t at the time of the Daily List posting. The	
		allowable value	s are:	
		Code	Value	
		Mutual Funds	(Types MF and MS)	
		0	Mutual Fund – Open End	
		С	Mutual Fund – Closed End	
		Y	Interval Fund	
		Z	Tender Offer Fund	
		Monev Marke	t Funds (Types \$\$ and \$S)	

Data Field	Field Format	Description	
		A	Money Market Fund – General Purpose
		G	Money Market Fund – Government Securities
		x	Money Market Fund – Tax Exempt Securities
		Unit Investme	nt Trust (Type US)
		D	Unit Investment Trust – Debt Securities
		E	Unit Investment Trust – Equity Securities
		Annuities (Typ	
		M	Annuity – Variable
		N	Annuity – Equity Indexed
			oducts (Type SP)
		R	Structured Product – Growth
		S	Structured Product – Income
		T	Structured Product – Digital
		U	Structured Product – Growth and Income
		V	Structured Product – Commodity / FX
		W	Structured Product – Rates
		L	Structured Product – Other
		Alternative Inv	vestment Products (Type AP)
		В	Managed Future Fund
		F	Fund of Hedge Fund
			Non-Traded REIT
		J	Non-Traditional Hedge Fund (Registered)
		К	Commodity Pool Fund
		Р	Private Equity Offering
		NextShares Ex	change Traded Managed Funds (Type EM)
		Q	NextShares
		Hedge Fund (1	Type HF)
		Н	Hedge Fund
		Collective Inve	stment Trust (Type CT)
		1	Collective Investment Trust
		Managed Acco	ounts (Type MA)
		2	Separately Managed Accounts (SMA)
		3	Unified Managed Accounts (UMA)
		Separate Acco	unts (Type SA)
		4	Separate Accounts
		Demand Depo	sit Account (Type DD)
		5	Demand Deposit Account
			rules by action are as follows: dition actions, this field will not be ited.

Data Field	Field Format	Description	
Instrument Code – New	1 byte, alphanumeric	 For replacement actions, this field will reflect the NFN issue category for the instrument being replaced in the system. For attribute change actions, this field will reflect the NFN issue category in system on the Daily List posting date. For deletion actions, this field will reflect the NFN issue category for the instrument being removed from the system. For restore actions, this field will not be populated. Indicates the investment strategy or sub-category for the NFN instrument on the stated System Effective Date. The allowable values are: 	
		Code	Value
		Mutual Funds (Types MF and MS)
		0	Mutual Fund – Open End
		С	Mutual Fund – Closed End
		Y	Interval Fund
		Z	Tender Offer Fund
		Money Market	Funds (Types \$\$ and \$S)
		A	Money Market Fund – General Purpose
			Money Market Fund – Government
		G	Securities
		х	Money Market Fund – Tax Exempt Securities
		Unit Investmen	t Trust (Type US)
		D	Unit Investment Trust – Debt Securities
		E	Unit Investment Trust – Equity
			Securities
		Annuities (Type	AN)
		M	Annuity – Variable
		N	Annuity – Equity Indexed
		Structured Proc	
		R	Structured Product – Index: Autocall
		S	Structured Product – Single Stock
		Т	Structured Product – Index:
		· · ·	Buffer/Barrier Enhanced Upside
		U	Structured Product – Index: Principal
		_	Protected
		V	Structured Product – Commodity / FX
		W	Structured Product – Rates
			Structured Product – Other
			estment Products (Type AP)
		В	Managed Future Fund
		F	Fund of Hedge Fund
		I	Non-Traded REIT

Data Field	Field Format	Description	
		J	Non-Traditional Hedge Fund
			(Registered)
		К	Commodity Pool Fund
		Р	Private Equity Offering
		NextShares Exc	change Traded Managed Funds (Type EM)
		Q	NextShares
		Hedge Fund (T	ype HF)
		Н	Hedge Fund
		Collective Inves	stment Trust (Type CT)
		1	Collective Investment Trust
		Managed Acco	ounts (Type MA)
		2	Separately Managed Accounts (SMA)
		3	Unified Managed Accounts (UMA)
		Separate Acco	
		4	Separate Accounts
			sit Account (Type DD)
		5	Demand Deposit Account
			Demana Deposit Account
		issue ca the sys For rep NFN iss added For attr the NFI date. For delu popula For rest issue ca to the I	lacement actions, this field will reflect the sue category for the instrument being to the system. ribute change actions, this field will reflect N issue category as of the System effective etion actions, this field will not be ted. tore actions, this field will reflect the NFN ategory for the instrument being reinstated NFN system.
Symbol – Current	11 bytes, alphanumeric	ric Denotes the Nasdaq-assigned identifier for NFN instrument at the time of the NFN Daily List file pos	
		 For add popula For rep symbol system For attr the syn date. For dele 	lacement actions, this field will reflect the for the instrument being replaced in the ribute change actions, this field will reflect nbol in system on the Daily List posting etion actions, this field will reflect the for the instrument being removed from

Data Field	Field Format	Description
		 For restore actions, this field will not be populated.
Symbol – New	11 bytes, alphanumeric	Denotes the new Nasdaq-assigned identifier for NFN instrument as of the System Effective Date.
		 The processing rules by action are as follows: For addition actions, this field will reflect the symbol for the instrument being added to the system. For replacement actions, this field will reflect the symbol for the instrument being added to the system. For attribute change actions, this field will reflect the symbol as of the System effective date. For deletion actions, this field will not be populated. For restore actions, this field will reflect the symbol for the instrument being reinstated to the not be not be
CUSIP – Current	9 bytes, alphanumeric	 Denote the CUSIP in the NFN system for the instrument at the time of the NFN Daily List file posting. Please note that Nasdaq will only populate this field for recipient firms with a valid CUSIP license and entitlement token. The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will reflect the CUSIP for the instrument being replaced in the system. For attribute change actions, this field will reflect the CUSIP in system on the Daily List posting date. For deletion actions, this field will reflect the CUSIP for the instrument being removed from the system. For deletion actions, this field will reflect the CUSIP for the instrument being removed from the system.
CUSIP – New	9 bytes, alphanumeric	Denotes the CUSIP number, as being reported by the NFN Issuer, for the NFN instrument as of the System Effective Date. Please note that Nasdaq will only populate this field for recipient firms with a valid CUSIP license and entitlement token. The processing rules by action are as follows:
		 For addition actions, this field will reflect the CUSIP for the instrument being added to the system. For replacement actions, this field will reflect the CUSIP for the instrument being added to the system.

Data Field	Field Format	Description
		 For attribute change actions, this field will reflect the CUSIP as of the System effective date. For deletion actions, this field will not be populated. For restore actions, this field will reflect the CUSIP for the instrument being reinstated to the NFN system.
Instrument Name – Current	Text up to 150 bytes	 Denotes the Issue Name in the NFN system for the instrument at the time of the NFN Daily List file posting. The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will reflect the Issue Name for the instrument being replaced in the system. For instrument attribute change actions, this field will reflect the Issue Name in system on the Daily List posting date.
Instrument Name –	Text up to 150 bytes	 For deletion actions, this field will reflect the Issue Name for the instrument being removed from the system. For restore actions, this field will not be populated. Denotes the Issue Name for NFN instrument as of the
New		 System Effective Date. The processing rules by action are as follows: For addition actions, this field will reflect the Issue Name for the instrument being added to the system. For replacement actions, this field will reflect the Issue Name for the instrument being added to the system. For attribute change actions, this field will reflect the Issue Name as of the System effective date. For deletion actions, this field will not be populated. For restore actions, this field will reflect the Issue Name of the instrument being reinstated to the NFN system.
Issuer Name – Current	Text up to 75 bytes	 Denotes the name of the Issuer / Sponsor for the NFN instrument at the time of the NFN Daily List file posting. The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will reflect the Issuer Name for the instrument being replaced in the system.

Data Field	Field Format	Description
		 For attribute change actions, this field will reflect the Issuer Name in system on the Daily List posting date. For deletion actions, this field will reflect the Issuer Name for the instrument being removed from the system. For restore actions, this field will not be populated.
Issuer Name – New	Text up to 75 bytes	 Denotes the name of the Issuer / Sponsor for the NFN instrument as of the System Effective Date. The processing rules by action are as follows: For addition actions, this field will reflect the Issuer Name for the instrument being added to the system. For replacement actions, this field will reflect the Issuer Name for the instrument being added to the system. For attribute change actions, this field will reflect the Issuer Name as of the System effective date. For deletion actions, this field will not be populated. For restore actions, this field will reflect the Issuer
Exchange Code for Listed Instruments – Current	4 bytes, alphanumeric	Name for the instrument being reinstated to the NFN system. Denotes the ISO 10383 Market Identification Codes (MICs) for the primary listing market center for the NFN instrument at the time of the Daily List posting.
		 Note: This field will be populated for closed-end funds / exchange traded funds and structured products only. The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the Listing Exchange Code in system on the Daily List posting date. For deletion actions, this field will reflect the Listing Exchange Code for the instrument being removed from the system. For restore actions, this field will not be populated.
Exchange Code for Listed Instruments – New	4 bytes, alphanumeric	Denotes the <u>ISO 10383 Market Identification Codes (MICs)</u> for the primary listing market center for the NFN instrument as of the System Effective Date. Note: This field will be populated for closed-end funds / exchange traded funds and structured products only.

Data Field	Field Format	Description
		 The processing rules by action are as follows: For addition actions, this field will reflect the Listing Exchange Code for the instrument being added to the system. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the Listing Exchange Code as of the System effective date. For deletion actions, this field will not be populated. For restore actions, this field will not be populated. For restore actions, this field will reflect the Listing Exchange Code for the instrument being reinstated to the NEN system
Exchange Symbol For Listed Instruments – Current	11 bytes, alphanumeric	 reinstated to the NFN system. Denotes the ticker identifier for the NFN instrument on its primary listing market at the time of the Daily List posting. Note: This field will only be populated if the exchange code field above is populated. The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the Listing Exchange Code in system on the Daily List posting date. For deletion actions, this field will reflect the Listing Exchange Code for the instrument being removed from the system. For restore actions, this field will not be populated.
Exchange Symbol For Listed Instruments – New	11 bytes, alphanumeric	 Denotes the ticker identifier for the NFN instrument on its primary listing market as of the System Effective Date. Note: This field will only be populated if the exchange code field above is populated. The processing rules by action are as follows: For addition actions, this field will reflect the Listing Exchange Symbol for the instrument being added to the system. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the Listing Exchange Symbol as of the System effective date. For deletion actions, this field will not be populated.

Data Field	Field Format	Description
		 For restore actions, this field will reflect the Listing Exchange Symbol for the instrument being reinstated to the NFN system.
Newspaper Category – Current	20 bytes, alphanumeric (inclusive of spaces)	 Denotes the heading to be displayed in print media stock tables in for the NFN Issuer / Fund Family as of the Daily List posting date. This field will only be populated if the NFN Fund Type – Current field value is equal to MF (Mutual Fund – News Media List) or \$\$ (Money Market Fund – News Media List). The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will not be populated. For NFN attribute change actions, this field will reflect the Newspaper Heading in system on the Daily List posting date. For deletion actions, this field will reflect the Newspaper Heading for the instrument being removed from the system. For restore actions, this field will not be
Newspaper Category – New	20 bytes, alphanumeric (inclusive of spaces)	 populated. Denotes the heading to be displayed in print media stock tables in for the NFN Issuer / Fund Family as of the System Effective Date. Note: This field should only be populated if the NFN Fund Type – New field value is equal to MF (Mutual Fund – News Media List) or \$\$ (Money Market Fund – News Media List). The processing rules by action are as follows: For addition actions, this field will reflect the Newspaper Heading for the instrument being added to the system. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the Newspaper Heading as of the System Effective Date. For deletion actions, this field will not be populated. For deletion actions, this field will not be populated.
Newspaper Abbreviation – Current	16 bytes, alphanumeric (inclusive of spaces)	Newspaper Heading for the instrument being reinstated to the NFN system. Denotes the descriptive symbol to be displayed in the print media stock tables for the NFN instrument as of System Effortive Date
		Effective Date. Note: This field should only be populated if the NFN Fund Type – Current field value is equal to MF or \$\$.

Data Field	Field Format	Description
		 The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the Newspaper Symbol in system on the Daily List posting date. For deletion actions, this field will reflect the Newspaper Symbol for the instrument being removed from the system. For restore actions, this field will not be populated.
Newspaper Abbreviation – New	16 bytes, alphanumeric (inclusive of spaces)	 Denotes the descriptive symbol to be displayed in the print media stock tables for the NFN instrument as of System Effective Date. Note: This field should only be populated if the NFN Fund Type – New field value is equal to MF or \$\$. The processing rules by action are as follows: For addition actions, this field will reflect the Newspaper Symbol for the instrument being added to the system. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the Newspaper Symbol as of the System Effective Date. For deletion actions, this field will not be populated. For restore actions, this field will reflect the Newspaper Symbol for the instrument being reinstated to the NFN system.
Pricing Agent – Current	Text up to 150 bytes	 Denotes the name of the firm responsible for submitting valuation data for NFN instrument at the time of the Daily List posting. The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will reflect the Pricing Agent for the instrument being replaced in the system. For attribute change actions, this field will reflect the Pricing Agent in system on the Daily List posting date. For deletion actions, this field will reflect the Pricing Agent for the instrument being removed from the system.

Data Field	Field Format	Description		
		For rest	ore actions, this field will not be	
		populat	ed.	
Pricing Agent – New	Text up to 150 bytes	Denotes the name of the firm responsible for submitting valuation data for NFN instrument as of the System Effective Date. The processing rules by action are as follows:		
			ition actions, this field will reflect the	
		Pricing the syst	Agent for the instrument being added to em.	
		Pricing /	acement actions, this field will reflect the Agent for the instrument being added to	
		the syst	em. ibute change actions, this field will reflect	
			ing Agent as of the System effective date.	
			tion actions, this field will not be	
		populat	ed. ore actions, this field will reflect the Pricing	
			or the instrument being reinstated to the	
		NFN sys		
Pricing Frequency – Current	1 byte, alphanumeric	Denotes the pricing frequency for the NFN instrument a the Daily List posting date. Allowable values are:		
		Code	Value	
		I	Intraday	
		D	Daily	
		W	Weekly	
		В	Bi-weekly	
		M	Monthly	
		Q	Quarterly	
		S	Semi-Annual	
		A	Annual	
		The processing r	ules by action are as follows:	
			ition actions, this field will not be	
		populat		
		NFN Pri	acement actions, this field will reflect the cing Frequency for the instrument being d in the system.	
		For attri the NFN	bute change actions, this field will reflect I Pricing Frequency in system on the Daily	
			ting date.	
			tion actions, this field will reflect the NFN Frequency for the instrument being	
			d from the system.	
			ore actions, this field will not be	
		populat		
Pricing Frequency – New	1 byte, alphanumeric	Denotes the expected pricing frequency for the NFN		
INEW		are:	System Effective Date. Allowable values	
	1			

Data Field	Field Format	Description		
		Code	Value	
		I	Intraday	
		D	Daily	
		W	Weekly	
		В	Bi-weekly	
		М	Monthly	
		Q	Quarterly	
		S	Semi-Annual	
		A	Annual	
		information, the de The processing rule • For additi Pricing Fro to the sys • For replac NFN Pricin added to • For attribu the NFN F effective of • For deleti populateo • For restor Pricing Fro	cement actions, this field will reflect the ng Frequency for the instrument being the system. ute change actions, this field will reflect Pricing Frequency as of the System date. on actions, this field will not be	
Country of Issuance	2 bytes, alphanumeric		ry registration location for the issuance tive Date. For this field, Nasdaq will use codes.	
ISIN – Current	12 bytes, alphanumeric		or the NFN Instrument at the time of the The ISIN should map to the country of	
ISIN – New	12 bytes, alphanumeric	Effective Date. The issuance.	or the NFN Instrument as of the System ISIN should map to the country of	
Currency	3 bytes, alphanumeric	Denotes the currency in which the NFN instrument will submit valuation data as of System Effective Date. Nasdac will use the <u>GitHub currency alphabetic codes</u> for this field The default value is "USD".		
Inception Date	Date, MM/DD/YYYY		hat the NFN Instrument was created by eld will be stated in MM/DD/YYYY format	
		For additi	es by action are as follows: on actions, this field will reflect the Date for the instrument being added.	

Data Field	Field Format	Description
		 For replacement actions, this field will reflect the Inception Date for the instrument being added. For attribute change actions, this field will reflect the Inception Date in the NFN system for the security. For deletion actions, this field will not be populated. For restore actions, this field will reflect the inception date for the instrument being reinstated to the NFN system.
NAV – Inception Date	11 bytes, alphanumeric	 Denotes the net asset value (NAV) for the NFN instrument as of the Inception Date. Data format: \$\$\$\$\$\$.dddd. Refer to the Pricing Currency field for the denomination for the NAV. The processing rules by action are as follows: For addition actions, this field will reflect the Inception Date NAV for the instrument being added. For replacement actions, this field will reflect the Inception Date NAV for the instrument being added. For attribute change actions, this field will reflect the updated inception date NAV if provided by the issuer. For deletion actions, this field will not be populated. For restore actions, this field will reflect the inception date NAV for the instrument being
Total Net Assets –	15 bytes, alphanumeric	reinstated to the NFN system if available. Denotes the total net assets for the NFN instrument as of
Inception Date		 the Inception Date. Data format: \$

Data Field	Field Format	D	escription	
Minimum Initial	12 bytes, alphanumeric		-	num Initial Subscription amount for the
Subscription		NFN instrument as of the Corporate Action Date. Data format: \$\$\$\$\$\$\$.dd . Refer to the Pricing Currency for the denomination for the subscription amount. Pla note that Minimum Initial Subscription is an optional		s of the Corporate Action Date. Data
				\$.dd. Refer to the Pricing Currency field
				ion for the subscription amount. Please
				m Initial Subscription is an optional data
		er	ntry field.	
		Tł		es by action are as follows:
				ion actions, this field will reflect the
				Initial Subscription for the instrument
			being add	
				cement actions, this field will reflect the
				Initial Subscription for the instrument
			being add	
				ute change actions, this field will reflect
				num Initial Subscription as of the e Action Date.
				ion actions, this field will not be
			 Por deleti populated 	
				re actions, this field will reflect the
				Initial Subscription for the instrument
				instated to the NFN system.
Minimum Incremental	12 bytes, alphanumeric	D		num Initial Subscription amount for the
Subscription				s of the Corporate Action Date. Data
		fo	ormat: \$\$\$\$\$\$\$	\$.dd . Refer to the Pricing Currency field
				ion for the subscription amount. Please
		no	ote that Minimur	m Initial Subscription is an optional data
		er	ntry field.	
		T		es by action are as follows:
				ion actions, this field will reflect the
				Incremental Subscription for the
				nt being added.
				cement actions, this field will reflect the Incremental Subscription for the
				nt being added.
				ute change actions, this field will reflect
				num Incremental Subscription as of the
				e Action Date.
				on actions, this field will not be
			populated	
			For restor	re actions, this field will reflect the
				Incremental Subscription for the
				nt being reinstated to the NFN system.
Open To New Investors	1 byte, alphanumeric	Denotes if the NFN Instrument is open or closed to investors as of the Corporate Action Date. Allowabl		
				Corporate Action Date. Allowable values
		ar	re:	
			Code	Value
			Code	
			C	Closed to new investors

Data Field	Field Format	Description	
		O Open to new investors	
		<space> Not available</space>	
		Please note that, if the issuer does not provide this flag, the	
		default value will be "O".	
		The processing rules by action are as follows:	
		• For addition actions, this field will reflect the Flag	
		for the instrument being added.	
		• For replacement actions, this field will reflect the	
		Flag for the instrument being added.	
		• For attribute change actions, this field will reflect	
		the Flag as of the Corporate Action Date.	
		 For deletion actions, this field will not be nonvolated 	
		populated.	
		 For restore actions, the field will reflect the Flag for the instrument being rejected to the NEN 	
		for the instrument being reinstated to the NFN system.	
Number of	12 bytes, alphanumeric	Denotes the number of shareholders for the NFN	
Shareholders		instrument as of the date listed in the field below.	
		The processing rules by action are as follows:	
		• For addition actions, this field will reflect the	
		Number of Shareholders for the instrument being	
		added.	
		• For replacement actions, this field will reflect the	
		Number of Shareholders for the instrument being	
		added.	
		• For attribute change actions, this field will reflect	
		the Number of Shareholders as of the date listed	
		below.	
		 For deletion actions, this field will not be nonulated 	
		 populated. For restore actions, this field will reflect the 	
		Number of Shareholders from the most recent	
		NFN application for the instrument being	
		reinstated to the NFN system.	
Number of	Date, MM/DD/YYYY	Indicates the "As of" Date associated with the Number of	
Shareholders Date		Shareholders field above. Field will be stated in	
		MM/DD/YYYY format if available. This field will only be	
		populated if the Number of Shareholders is provided.	
Total Shares	12 bytes, alphanumeric	Denotes the number of total shares outstanding (TSO) for	
Outstanding		the NFN instrument as of date listed in the field below.	
		The processing rules by action are as follows:	
		• For addition actions, this field will reflect the TSO	
		for the instrument being added.	
		 For replacement actions, this field will reflect the TSO for the instrument being added 	
		TSO for the instrument being added.	

Data Field	Field Format	Description
Total Shares Outstanding Date	Date, MM/DD/YYYY	 For attribute change actions, this field will reflect the TSO as of the date listed below. For deletion actions, this field will not be populated. For restore actions, this field will reflect the TSO from the most recent NFN application for the instrument being reinstated to the NFN system. Indicates the "As of" Date associated with the TSO field above. Field will be stated in MM/DD/YYYY format if
		available. This field will only be populated if the TSO is provided.
Total Net Assets	15 bytes, alphanumeric	Denotes the Total Net Assets (in actual currency units) for the NFN instrument as of the date listed in the field below. Data Format: \$\$\$\$\$\$\$\$\$\$. Refer to the Pricing Currency field for the denomination for the Total Net Assets.
		 The processing rules by action are as follows: For addition actions, this field will reflect the Total Net Assets for the instrument being added. For replacement actions, this field will reflect the Total Net Assets for the instrument being added. For attribute change actions, this field will reflect the Total Net Assets as of the date listed below. For deletion actions, this field will not be populated. For restore actions, this field will reflect the Total Net Assets from the latest NFN application for the instrument being reinstated to the NFN system. Note: NFN allows firms to report Total Net Assets via the NFN Valuation Module on a daily basis. Once a security is active on the NFN system.
		active on the NFN system, firms should use the Nasdaq Fund Network Data Service product for Total Net Asset information.
Total Net Assets Date	Date, MM/DD/YYYY	Indicates the "As of" Date associated with the Total Net Assets field above. Field will be stated in MM/DD/YYYY format if available. This field will only be populated if the Total Net Assets is provided.
Deposit Date – Current	Date, MM/DD/YYYY	Indicates the current date in the NFN system for the trust deposit. Field will be stated in MM/DD/YYYY format. This field will only be populated for UIT and Structured Product registrations.
		 The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will reflect the Deposit Date for the instrument being removed.

Data Field	Field Format	Description
		 For attribute change actions, this field will reflect the Deposit Date on the Daily List posting date. For deletion actions, this field will reflect the Deposit Date for the instrument being deleted. For restore actions, this field will not be populated.
Deposit Date – New	Date, MM/DD/YYYY	Indicates the new date in the NFN system for the trust deposit. Field will be stated in MM/DD/YYYY format. This field will only be populated for UIT and Structured Product instruments.
		 The processing rules by action are as follows: For addition actions, this field will reflect the Deposit Date for instrument being added. For replacement actions, this field will reflect the Deposit Date for the instrument being added. For attribute change actions, this field will reflect the Deposit Date as of the System Effective Date. For deletion actions, this field will not be populated. For restore actions, this field will reflect the Deposit Date for the instrument being instated to the NFN system.
Termination Date – Current	Date, MM/DD/YYYY	Indicates the scheduled maturity or termination date for the NFN instrument on the Daily List posting date. Field will be stated in MM/DD/YYYY format if available. This field will only be populated for UIT and Structured Product instruments.
		 The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will reflect the Termination Date for the instrument being removed. For attribute change actions, this field will reflect the Termination Date as of the System Effective Date. For deletion actions, this field will reflect the Termination Date for the instrument being deleted. For restore actions, this field will not be populated.
Termination Date – New	Date, MM/DD/YYYY	Indicates the scheduled maturity or termination date for the NFN instrument as of the System Effective Date. Field will be stated in MM/DD/YYYY format if available. This field will only be populated for UIT and Structured Product instruments. The processing rules by action are as follows:

Data Field	Field Format	Description	
Distribution Frequency – Current	1 byte, alphanumeric	 For addition actions, this field will reflect the Termination Date for instrument being added. For replacement actions, this field will reflect the Termination Date for the instrument being added. For attribute change actions, this field will reflect the Termination Date as of the System Effective Date. For deletion actions, this field will not be populated. For restore actions, this field will reflect the Termination Date from the most recent NFN application for the instrument being reinstated to the NFN system. Indicates the current distribution frequency for the instrument in the NFN system on the Daily List posting date. Allowable values are: 	
		Code	Value
		M	Monthly
		Q S	Quarterly Semi-Annual
		3	Annual
		D	Distributes on Termination
		<space></space>	Not available
		 For additi populated For replace For attributi removed. For attributi the Distributi posting d For deleti Distributi deleted. 	cement actions, this field will reflect the ion Frequency for the instrument being bute change actions, this field will reflect bution Frequency as of the Daily List late. ion actions, this field will reflect the ion Frequency for the instrument being re actions, this field will not be
Distribution Type –	2 bytes, alphanumeric		ent distribution type listed in the NFN
Current			trument. Allowable values are:
		Code	Value
		С	Cash
		R	Reinvest
		W	Wrap
		RC	Reinvest Cash
		RW	Reinvest Wrap
		<space></space>	Not available

Data Field	Field Format	Description		
		The processing rules by action are as follows:		
		• For addition actions, this field will not be		
		populated.For replacement actions, this field will reflect the		
		Distribution Type for the instrument being removed.		
			ute change actions, this field will reflect	
			bution Type as of the Daily List posting	
		date.		
			ion actions, this field will reflect the	
		deleted.	on Type for the instrument being	
			re actions, this field will not be	
		populate		
Distribution Frequency	1 byte, alphanumeric		cted distribution frequency for the	
– New		instrument. Allow		
		Code	Value	
		М	Monthly	
		Q	Quarterly	
		S	Semi-Annual	
		A	Annual	
		D	Distributes on Termination	
		<space></space>	Not available	
Distribution Type –	2 bytes, alphanumeric	 For additi Distributi added. For replay Distributi added. For attrib the Distri Effective For attrib the Distri Effective For deleti populate For restor Distributi reinstate 	ion actions, this field will not be d. re actions, this field will reflect the on Frequency for the instrument being d to the NFN system. ned distribution type reported by the	
New		Issuer for the NFN instrument. Allowable values are:		
		Code	Value	
		C	Cash	
		R	Reinvest	
		W	Wrap	
		RC	Reinvest Cash	
		RW	Reinvest Wrap	
		<space></space>	Not available	

Data Field	Field Format	Description	
Par Value Per Share/Unit	13 bytes, alphanumeric	 The processing rules by action are as follows: For addition actions, this field will reflect the Distribution Type for instrument being added. For replacement actions, this field will reflect the Distribution Type for the instrument being added. For attribute change actions, this field will reflect the Distribution Type as of the System Effective Date. For deletion actions, this field will not be populated. For restore actions, this field will reflect the Distribution Type for the instrument being reinstated to the NFN system. Denotes the face value amount for the NFN instrument as of the System Effective Date. Data format will be: \$.ddddd. Refer to the Pricing Currency field for the denomination for the Par Value amount. Please note that the Par Value Per Unit/Share field may only be populated for UIT securities. The processing rules by action are as follows: For replacement actions, this field will reflect the Par Value for instrument being added. For addition actions, this field will reflect the Par Value for the instrument being added. For addition actions, this field will reflect the Par Value for the instrument being added. For addition actions, this field will reflect the Par Value for the instrument being added. For addition actions, this field will reflect the Par Value for the instrument being added. For attribute change actions, this field will reflect the Par Value as of the System Effective Date. For deletion actions, this field will not be populated. For deletion actions, this field will not be populated. For restore actions, this field will not be populated. 	
Deletion Reason	1 byte, alphanumeric	NFN system. Denotes the reason why the NFN instrument is being deleted from the system. This field will only be populated for deletion actions. Allowable values are:	
		Code	Value
		L	Liquidated
		L E	Liquidated Terminated / Expired
		L E M	Liquidated Terminated / Expired Merged
		L E	Liquidated Terminated / Expired Merged Acquired
		L E M A I	Liquidated Terminated / Expired Merged Acquired Removed at Issuer Request
		L E M A I Q	Liquidated Terminated / Expired Merged Acquired
		L E M A I	Liquidated Terminated / Expired Merged Acquired Removed at Issuer Request
		L E M A I Q	Liquidated Terminated / Expired Merged Acquired Removed at Issuer Request Removed by Nasdaq
		L E M A I Q P	Liquidated Terminated / Expired Merged Acquired Removed at Issuer Request Removed by Nasdaq Issuance Postponed
		L E M A I Q P C	Liquidated Terminated / Expired Merged Acquired Removed at Issuer Request Removed by Nasdaq Issuance Postponed Issuance Cancelled
		L E M A I Q P C R	Liquidated Terminated / Expired Merged Acquired Removed at Issuer Request Removed by Nasdaq Issuance Postponed Issuance Cancelled Instrument Reorganization

Data Field	Field Format	De	escription	
			т	Matured
			<space></space>	Not applicable
		'	·	· · · · · · · · · · · · · · · · · · ·
Symbol for Merger /	11 bytes, alphanumeric			Symbol for the surviving instrument in
Acquisition		th	e event of a me	rger or acquisition.
		De (R er	eletion Reason is eorganization).	opulated for Deletion events if the s "M" (Merged), "A" (Acquired), or "R" Nasdaq will populate this field if it is N Issuer even if the surviving instrument NFN system.
		De co th as	eletion Reason is nversions, NFN e old asset class set class value.	be populated for Deletion events if the s "V" (Conversion). For instrument Daily List will carry a deletion record for as well as an addition record for the new Firms may use the CUSIP / Symbol fields cord to map data as appropriate.
CUSIP for Merger /	9 bytes, alphanumeric			P number for the surviving instrument in
Acquisition				rger or acquisition. Please note that
				oopulate this field for recipient firms with
		a	valid CUSIP licen	se and entitlement token.
		This field will be populated for Deletion events if the Deletion Reason is "M" (Merged), "A" (Acquired), or "R" (Reorganization). Nasdaq will populate this field if it is entered by the NFN Issuer even if the surviving instrument is not part of the NFN system.		
		This field will also be populated for Deletion events if the Deletion Reason is "V" (Conversion). For instrument conversions, NFN Daily List will carry a deletion record for the old asset class as well as an addition record for the new asset class value. Firms may use the CUSIP / Symbol fields in the deletion record to map data as appropriate.		
Document Available	1 byte, alphanumeric			ting documentation will be posted to the
			FN service on th	e stated effective date. Allowable values
		ŭ		
			Code	Value
			Y	Yes. Supporting documentation will
				be available for this corporate action
				on stated system effective date
			N	No. Supporting documentation will
				not be posted to NFN Daily List for
			<60200	this corporate action. Not applicable
		⊥ I	<space.< td=""><td></td></space.<>	

Data Field	Field Format	Description			
NSCC Clearing Eligible –	1 byte, alphanumeric	Denotes if the NFN instrument is currently National			
Current		Securities Clearing Corporation (NSCC) eligible. Allowable values are:			
		Code	Value		
		Y	Yes. NFN issuer has indicated that		
			this instrument is NSCC clearing		
			eligible.		
		N	No. NFN issuer has indicated that		
			this instrument is <u>not</u> NSCC clearing		
			eligible.		
		<space></space>	Not available. NFN issuer did not		
			provide NSCC eligibility status.		
		The processing r	ules by action are as follows:		
			ition actions, this field will not be		
		populat	-		
		For repl	acement actions, this field will reflect the		
		NSCC eligibility flag for the instrument being removed.For attribute change actions, this field will reflected actions.			
		 the NSCC eligibility flag as of the Daily List posting date. For deletion actions, this field will reflect the NSC 			
		eligibility flag for the instrument being delet			
		-	ore actions, this field will not be		
		populat			
NSCC Clearing Eligible –	1 byte, alphanumeric	Denotes if the NFN instrument will be National Securitie			
New		Clearing Corporation (NSCC) eligible as of the stated			
		System effective	date. The allowable values are:		
		Code	Value		
		Y	Yes. NFN issuer has indicated that		
			this instrument is NSCC clearing		
			eligible.		
		N	No. NFN issuer has indicated that		
			this instrument is <u>not</u> NSCC clearing eligible.		
		<space></space>	Not available. NFN issuer did not		
		(opuce)	provide NSCC eligibility status.		
		The processing rules by action are as follows:			
	For addition actions		ition actions, this field will reflect the NSCC		
		eligibility flag for instrument being added.For replacement actions, this field will reflect			
		NSCC eligibility flag for the instrument being			
		added.	ibute change actions, this field will reflect		
			ibute change actions, this field will reflect C eligibility flag as of the System Effective		
		Date.			
	I	Date.			

Data Field	Field Format	Description		
Test Symbol Flag	1 byte, alphanumeric	 For deletion actions, this field will not be populated. For restore actions, this field will reflect the NSCC eligibility flag for the instrument being reinstated to the NFN system. Denotes if the instrument is set up as a live or test issue 		
		currently in the NFN system. Allowable values are:		
		Code Value		
		Y NFN Test Symbol. Instrument is intended for test use only.		
		N NFN Live Symbol. Instrument is set up as live / production in NFN system.		
Symbol Reuse Flag	1 byte, alphanumeric	 The processing rules by action are as follows: For addition actions, this field will be populated. For replacement actions, this field will reflect the Test Symbol Flag for both incoming and outgoing symbols. For attribute change actions, this field will reflect the Test Symbol Flag as of the Daily List posting date. For deletion actions, this field will reflect the Test Symbol Flag for the instrument being deleted. For restore actions, this field will reflect Test Symbol Flag for instrument being reinstated. 		
		different instrument. The allowable values are:		
		Code Value		
		Y Yes. NFN Symbol is being reused. NFN Symbol was previously used in NFN system for a different instrument.		
		N No. NFN Symbol is being assigned in NFN system for first time.		
		<pre><space> Symbol Reuse Flag is not supported for event code.</space></pre>		
		 The processing rules by action are as follows: For addition actions, this field will be populated. For replacement actions, this field will reflect the Symbol Reuse status for incoming symbols. For attribute change actions, this field will reflect the Symbol Reuse status for the NFN Symbol – New field. For deletion actions, this field will not be supported. 		

Data Field	Field Format	Description		
		For restore actions, this field will not be		
		supported.		
Instrument	1 byte, alphanumeric	Denotes the current regulatory agency responsible for		
Registration – Current	1 byte, aprianamene	registration and/or oversight of NFN instrument. The allowable values are:		
		Code	Value	
		S	U.S. Securities and Exchange Commission (SEC)	
		М	Instrument is filed with Municipal	
			Securities Rulemaking Board (MSRB)	
		C	Commodity Futures Trading	
			Commission (CTFC)	
		X	SEC Registration Exemption	
		N	Not Registered with U.S. Regulatory	
			Agency	
		U	UCITS	
		0	Other	
Instrument Registration – New	1 byte, alphanumeric	 For add populat For repl registra For attri the curr system. For dele instrum For rest support Denotes the regu and/or oversight effective date. The 	acement actions, this field will instrument tion for outgoing instrument. ibute change actions, this field will reflect tent Instrument Registration in the NFN action actions, this field will reflect the ent registration for deleted instrument. ore actions, this field will not be ed. alatory agency responsible for registration of NFN instrument as of stated system the allowable values are:	
		Code	Value	
		S	U.S. Securities and Exchange	
		M	Commission (SEC) Instrument is filed with Municipal	
		IVI	Securities Rulemaking Board (MSRB)	
		С	Commodity Futures Trading	
			Commission (CTFC)	
		Х	SEC Registration Exemption	
		N	Not Registered with U.S. Regulatory	
			Agency	
		U	UCITS	
		0	Other	
		The processing r	ules by action are as follows:	

Data Field	Field Format	Description		
Investor Type – Current	1 byte, alphanumeric	 For addition actions, this field will be populated. For replacement actions, this field will instrument registration for incoming instrument. For attribute change actions, this field will reflect the updated Instrument Registration for the NFN system. For deletion actions, this field will not be supported. For restore actions, this field will reflect the Instrument Registration for the reinstated instrument. Denotes the current target investor class for an instrument. 		
		Code	Value	
		Code	Institutional Investors	
		R	Retail Investors, Both Retail and	
			Institutional Investors	
		<space></space>	Not available	
Investor Type – New	1 byte, alphanumeric		target investor class for an instrument.	
<i>,</i> ,		The allowable values will be:		
		Code	Value	
		I	Institutional Investors	
		R	Retail Investors, Both Retail and	
			Institutional Investors	
		<space></space>	Not available	
Instrument Class- New	Text up to 50 bytes	 Denotes the Share Class for the NFN instrument. Please note this field is only populated for all instruments with Mutual Funds, Money Market Funds, Annuities, and Alternative Investment Product Instrument Types. The processing rules by action are as follows: For addition actions, this field will reflect the Instrument Class for the instrument being added to the system. For replacement actions, this field will reflect the Instrument Class for the instrument being added to the system. For attribute change actions, this field will reflect the Instrument Class as of the Inception date. For deletion actions, this field will not be populated. For restore actions, this field will reflect the Instrument Class of the instrument being reinstated to the NFN system. 		
Instrument Class- Current	Text up to 50 bytes		e Class for the NFN instrument.	

Data Field	Field Format	Description
		Please note this field is only populated for all instruments with Mutual Funds, Money Market Funds, Annuities, and Alternative Investment Product Instrument Types.
		 The processing rules by action are as follows: For addition actions, this field will reflect the Instrument Class for the instrument being added to the system. For replacement actions, this field will reflect the Instrument Class for the instrument being added to the system. For attribute change actions, this field will reflect the Instrument Class as of the Inception date. For deletion actions, this field will not be populated. For restore actions, this field will reflect the Instrument Class of the instrument being reinstated to the NFN system.
Root Symbol- New	13 bytes, alphanumeric	Denotes the Root Symbol for NFN instruments.
		 The processing rules by action are as follows: For addition actions, this field will be created by NFN Operations and instruments assigned. For replacement actions, this field not be populated for UITs. For attribute change actions, this field will not change with attribute changes. For deletion actions, this field will not be populated.
Root Symbol- Current	13 bytes, alphanumeric	Denotes the Root Symbol for NFN instruments.
Nordos Copyrity	10 hutes alphanumaria	 The processing rules by action are as follows: For addition actions, this field will be created by NFN Operations and instruments assigned. For replacement actions, this field not be populated for UITs. For attribute change actions, this field will not change with attribute changes. For deletion actions, this field will not be populated.
Nasdaq Security Master	10 bytes, alphanumeric	Denotes the Nasdaq Security Master, as created by the NFN system, for the NFN instrument as of the System Effective Date.
		 The processing rules by action are as follows: For addition actions, this field will reflect the Nasdaq Security Master for the instrument being added to the system. For replacement actions, this field will reflect the Nasdaq Security Master for the instrument being added to the system.

Data Field	Field Format	Description
		 For attribute change actions, this field will reflect the Nasdaq Security Master as of the System effective date. For deletion actions, this field will reflect the Nasdaq Security Master for the instrument being removed from the system. For restore actions, this field will reflect the Nasdaq Security Master for the instrument being removed from the system.
Vehicle Legal Structure – Current	100 bytes, alphanumeric	Indicates how the instrument is currently represented or registered as with a regulation body.
		 The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the Vehicle Legal Structure in system on the Daily List posting date. For deletion actions, this field will reflect the Vehicle Legal Structure for the instrument being removed from the system. For restore actions, this field will not be populated.
Vehicle Legal Structure	100 bytes,	Indicates how the instrument is represented or registered
– New	alphanumeric	 as with a regulation body. The processing rules by action are as follows: For addition actions, this field will be populated. For replacement actions, this field will reflect instrument registration for incoming instrument. For attribute change actions, this field will reflect the updated Instrument Registration for the NFN system. For deletion actions, this field will not be supported. For restore actions, this field will reflect the Vehicle Legal Structure for the reinstated instrument.
Instrument	40 bytes,	Indicates the current performance of the instrument:
Performance – Current	alphanumeric	Aggregate or Model. This field will only be populated for Managed Accounts and Separate Accounts.
		 The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will not be populated.

Data Field	Field Format	Description
		 For attribute change actions, this field will reflect the Instrument Performance in system on the Daily List posting date. For deletion actions, this field will reflect the Instrument Performance for the instrument being removed from the system. For restore actions, this field will not be populated.
Instrument	40 bytes,	Indicates the new performance of the instrument:
Performance – New	alphanumeric	Aggregate or Model. This field will only be populated for Managed Accounts and Separate Accounts.
		 The processing rules by action are as follows: For addition actions, this field will be populated. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the updated Instrument Performance for the NFN system. For deletion actions, this field will not be supported. For restore actions, this field will reflect the Instrument Performance for the reinstated instrument.
Rebalance Frequency – Current	50 bytes, alphanumeric	Indicates the current frequency of buying and selling securities of the portfolio to set the weight of each asset class back to its original state of investment strategy. This field will only be populated for Managed Accounts and Separate Accounts.
		 The processing rules by action are as follows: For addition actions, this field will not be populated. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the Rebalance Frequency in system on the Daily List posting date. For deletion actions, this field will reflect the Rebalance Frequency for the instrument being removed from the system. For restore actions, this field will not be populated.
Rebalance Frequency – New	50 bytes, alphanumeric	Indicates the new frequency of buying and selling securities of the portfolio to set the weight of each asset class back to its original state of investment strategy. This field will only be populated for Managed Accounts and Separate Accounts.
		The processing rules by action are as follows:For addition actions, this field will be populated.

Data Field	Field Format	Description				
		 For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the updated Rebalance Frequency for the NFN system. For deletion actions, this field will not be supported. For restore actions, this field will reflect the Rebalance Frequency for the reinstated instrument. 				
Number of Accounts	10 bytes, alphanumeric	Denotes the number of accounts for the instrument. This field will only be populated for Managed Accounts and Separate Accounts.				
		 The processing rules by action are as follows: For addition actions, this field will reflect the Number of Accounts for the instrument being added. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the Number of Accounts as of the date listed below. For deletion actions, this field will not be populated. For restore actions, this field will reflect the Number of Accounts for the most recent NFN application for the instrument being reinstated to the NFN system. 				
Number of Accounts Date	Date, MM/DD/YYYY	Indicates the "As of" Date associated with the Number of Accounts field. Field will be stated in MM/DD/YYYY format if available. This field will only be populated if the Number				
GIPS Compliant	1 byte, alpha	of Accounts is provided.Denotes that the Instrument is compliant with the GlobalInvestment Performance Standards (GIPS). This field willonly be populated for Managed Accounts, SeparateAccounts, and Collective Investment Trusts. Allowablevalues are:				
		Code Value				
		Y Yes. NFN issuer has indicated that this instrument is GIPS Compliant. N No. NFN issuer has indicated that this				
		instrument is not GIPS Compliant.				
		<pre><space> Not available. NFN Issuer did not provide GIPS compliance status.</space></pre>				
		 The processing rules by action are as follows: For addition actions, this field will reflect the GIPS Compliance status for instrument being added. 				

Data Field	Field Format	Description
Insured	20 bytes, alphanumeric	 For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the GIPS Compliance flag as of the Daily List posting date. For deletion actions, this field will reflect the GIPS Compliance flag for the instrument being deleted. For restore actions, this field will not be populated. Denotes whether the instrument is insured by FDIC or
		others, for Demand Deposit Accounts only. Allowable values are: Value FDIC Other Not Applicable
		 The processing rules by action are as follows: For addition actions, this field will reflect the Insured status for instrument being added. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the Insured status as of the System Effective Date. For deletion actions, this field will not be populated. For restore actions, this field will reflect the Insured status for the instrument being reinstated to the NFN system.
Insured Amount	9 bytes, numeric	 Indicates the amount of investment in Demand Deposit Account that is being insured. Data Format: \$\$\$\$\$\$\$. The processing rules by action are as follows: For addition actions, this field will reflect the Insured Amount for the instrument being added. For replacement actions, this field will not be populated. For attribute change actions, this field will reflect the Insured Amount as of the date listed below. For deletion actions, this field will not be populated. For restore actions, this field will reflect the Insured Amount from the latest NFN application for the instrument being reinstated to the NFN system.
Notes for Daily List Record	Text up to 300 bytes	Denotes any special processing notes from NFN Operations related to the NFN instrument's action.

Data Field	Field Format	Description					
		Please note that it is Nasdaq's practice for the NFN					
		Operations team to populate this notes field for corrected					
		actions, withdrawn actions and restore actions.					
		Please also note that it is Nasdaq's practice to show the most recent note associated with the instrument action on					
		the Next Day version of the NFN Daily List.					
Model Portfolio	1 bytes, Alpha	Denotes that the Instrument is a Model Portfolio.					
		Allowable values are:					
		Code Value					
		Y Yes. The instrument is a Model Portfolio.					
		N No. The instrument is					
		not a Model					
		Portfolio.					
		 The processing rules by action are as follows: For addition actions, this field will reflect the Flag for the instrument being added. For replacement actions, this field will reflect the Flag for the instrument being added. For attribute change actions, this field will reflect the Flag as of the Corporate Action Date. For deletion actions, this field will not be populated. For restore actions, the field will reflect the Flag for the instrument being reinstated to the NFN system. 					
		Please note that Nasdaq will populate this field as "N" if not provided by the Issuer.					

Closing Record

Data Field	Field Format	Description
Parameter	40 characters, alphanumeric (including special	Restatement of the file query parameter as entered by the user.
	characters)	Daily List File Name: DLAdvance or DLNextDay Date of Daily List: MM/DD/YYYY
Note for Day	Text up to 300 bytes	Denotes any special processing notes from NFN Operations for the current business day that are not NFN instrument specific.

Event Code Descriptions

As noted above, each NFN Daily List record includes an Event Code to denote the type of record change that is being reported. In the table below, Nasdaq outlines how the Event Codes will be generated.

Event Codes	Event Description	Daily List Version	Daily List Processing Notes
Addition	A new NFN registration application submitted	Advanced Notification	Supported on all versions of Daily List files.
	with final documentation	Next Day	On the Advanced Notification list, NFN Operations will post an Addition record as soon as it notified of the planned action. If the issuer changes its plans, NFN Operations may post multiple Addition records to the Advanced Notification list.
			On the Next Day list, NFN will only show the final Addition record.
Deletion	A delete instrument request for an existing	Advanced Notification	Supported on all versions of the Daily List files.
	NFN instrument	Next Day	On the Advanced Notification list, NFN Operations will post a Deletion record as soon as it notified of the planned action. If the issuer changes its plans, NFN Operations may post multiple Deletion records to the Advanced Notification list.
			On the Next Day list, NFN will only show the final Deletion record.
Replacement	A combined action in which a firm is adding a new instrument at the same time as it is deleting an expiring instrument	Advanced Notification Next Day	Supported on all versions of Daily List files. On the Advanced Notification list, NFN Operations will post a Replacement record as soon as it notified of the planned action. If the issuer changes its plans, NFN Operations may post multiple Replacement records to the Advanced Notification list.
			On the Next Day list, NFN will only show the final Replacement record.
Attribute Change	A modification to one of the security attributes for a live NFN instrument. Firms should compare current and new field values to determine the fields impacted by the change request.	Advance Notifications Next Day	Supported on all versions of Daily List files. Corporate Action Date = Date NFN Issuer reported that the security change action was instituted on its end. On the Advanced Notification list, NFN Operations will post an Attribute Change record as soon as it notified of the planned action. If the issuer changes its plans, NFN Operations may post multiple Attribute Change
			records to the Advanced Notification list. On the Next Day list, NFN will only show the final Attribute Change record.
Restore	A reversal of a NFN instrument deletion.	Advanced Notification	If an instrument is removed from the NFN system in error, Nasdaq will use the Restore

Withdraw – Addition	A cancellation of a previously announced Addition to the NFN system.	Next Day Advanced Notification Next Day	 event code to reverse the Deletion action. Given that most firms want to resume pricing of an instrument as quickly as possible, the Restore records should always appear in the Next Day file. As noted above, Nasdaq will be adding Withdraw event codes to notify the vendor community of a cancelled NFN listing action. The Withdraw event should always appear on the Advanced Notification list. The Withdraw event will only appear on the Next Day list, however, if the issuer waits to
			the last minute to notify NFN Operations of the cancelled action.
Withdraw – Deletion	A cancellation of a previously announced Deletion from the NFN system.	Advanced Notification Next Day	As noted above, Nasdaq will be adding Withdraw event codes to notify the vendor community of a cancelled NFN listing action. The Withdraw event should always appear on the Advanced Notification list.
			The Withdraw event will only appear on the Next Day list, however, if the issuer waits to the last minute to notify NFN Operations of the cancelled action.
Withdraw – Replacement	A cancellation of a previously announced Replacement action on the NFN system.	Advanced Notification Next Day	As noted above, Nasdaq will be adding Withdraw event codes to notify the vendor community of a cancelled NFN listing action. The Withdraw event should always appear on the Advanced Notification list.
			The Withdraw event will only appear on the Next Day list, however, if the issuer waits to the last minute to notify NFN Operations of the cancelled action.
Withdraw – Attribute Change	A cancellation of a previously announced Attribute Change.	Advanced Notification Next Day	As noted above, Nasdaq will be adding Withdraw event codes to notify the vendor community of a cancelled NFN listing action. The Withdraw event should always appear on
			the Advanced Notification list. The Withdraw event will only appear on the Next Day list, however, if the issuer waits to the last minute to notify NFN Operations of the cancelled action.
Withdraw – Restore	A cancellation of a previously announced NFN instrument restore	Advanced Notification	Although Nasdaq would rarely, if ever, use this event code, it could theoretically need to withdraw a NFN instrument restore action. If it

	Next Day	were to need to cancel the action, the
		Withdraw event would appear on both the
		Advanced Notification and Next Day lists.

Daily List Processing Summary

The following table summarizes each data field will be populated by Event Code.

		Da	ily List Action			Security Limitations or
Field	Addition	Replacement	Attribute Change	Deletion	Restore	Notes
System Effective Date	х	х	Х	х	х	
Event Code	х	х	х	х	х	
Corporate Action Date			х	х		
Instrument Type / Tier – Current		Outgoing Instrument	x	x		
Instrument Type / Tier – New	х	Incoming Instrument	х		х	
Instrument Code – Current		Outgoing Instrument	x	x		
Instrument Code – New	х	Incoming Instrument	х		х	
Symbol – Current		Outgoing Instrument	х	х		
Symbol – New	х	Incoming Instrument	х		х	
CUSIP – Current		Outgoing Instrument	х	x		
CUSIP – New	х	Incoming Instrument	х		х	
Instrument Name – Current		Outgoing Instrument	х	х		
Instrument Name - New	х	Incoming Instrument	х		х	
Issuer Name - Current		Outgoing Instrument	х	х		
Issuer Name - New	х	Incoming Instrument	х		х	
Exchange Code for Listed Instruments – Current			0	0		Closed End Funds, Structured Products, NextShares
Exchange Code for Listed Instruments – New	0		ο		0	Closed End Funds, Structured Products, NextShares
Exchange Symbol for Listed Instruments – Current			ο	0		Closed End Funds, Structured Products, NextShares
Exchange Symbol for Listed Instruments – New	0		о		0	Closed End Funds, Structured Products, NextShares
Newspaper Heading - Current			О	0		Mutual Funds - News Media; Money Market Fund - New Media
Newspaper Heading – New	0		0		0	
Newspaper Symbol – Current			0	0		Mutual Funds - News Media; Money Market Fund - New Media
Newspaper Symbol – New	0		0		0	
Pricing Agent - Current		Outgoing Instrument	х	x		
Pricing Agent - New	х	Incoming Instrument	х		х	
Pricing Frequency – Current		Outgoing Instrument	х	х		

	Daily List Action					Security Limitations or
Field	Addition	Replacement	Attribute Change	Deletion	Restore	Notes
Pricing Frequency – New	х	Incoming Instrument	X		х	
Country of Issuance	х	Incoming Instrument	х	х	х	Default value is US
ISIN - Current		Outgoing Instrument	0	х	0	Required for international listings
ISIN – New	0	Incoming Instrument	0	х	0	Required for international listings
Currency	х	Incoming Instrument	х	x	x	Default value is USD
Inception Date	х	Incoming Instrument	х		x	
NAV - Inception Date	0	Incoming Instrument	0		0	
Total Net Assets – Inception Date	0	Incoming Instrument	0		0	
Minimum Initial Subscription	0	Incoming Instrument	0		0	
Minimum Incremental Subscription	0	Incoming Instrument	0		0	
Open To New Investors	х	Incoming Instrument	х		х	Default value is Y
Number of Shareholders	0	Incoming Instrument	0		0	News media list funds must provide either shareholder or asset information at time of listing / tier upgrade
Number of Shareholders Date	0	Incoming Instrument	0		0	
Total Shares Outstanding (TSO)	0	Incoming Instrument	0		0	
TSO Date	0	Incoming Instrument	0		0	
Total Net Assets	0	Incoming Instrument	0		0	News media list funds must provide either shareholder or asset information at time of listing / tier upgrade
Total Net Assets Date	0	Incoming Instrument	0		0	
Deposit Date - Current		Outgoing Instrument	0	0		Required for UITs
Deposit Date - New	0	Incoming Instrument	О		о	Required for UITs
Termination Date – Current		Outgoing Instrument	0	0		Required for UITs
Termination Date - New	0	Incoming Instrument	0		0	Required for UITs
Distribution Frequency – Current		Outgoing Instrument	0	0		Required for UITs
Distribution Frequency – New	0	Incoming Instrument	0		0	Required for UITs
Distribution Type – Current		Outgoing Instrument	0	0		Required for UITs
Distribution Type - New	0	Incoming Instrument	0		0	Required for UITs
Par Value Per Share/Unit	0	Incoming Instrument	0	0	0	
Deletion Reason				х		

		Da	aily List Action			Security Limitations or
Field	Addition	Replacement	Attribute Change	Deletion	Restore	Notes
Symbol for Merger / Acquisition			Change	0		Populated only if deletion reason is A, M, R or V
CUSIP for Merger / Acquisition				0		Populated only if deletion reason is A, M, R or V
Document Available	Х	х	х	Х	х	
NSCC Clearing Eligible - Current		Outgoing Instrument	0	0		
NSCC Clearing Eligible – New	0	Incoming Instrument	0		0	
Test Symbol Flag	Х	Both	Х	Х	х	
Symbol Reuse Flag	х	Incoming Instrument	New Symbol			
Instrument Registration – Current		Outgoing Instrument	x	х		
Instrument Registration – New	х	Incoming Instrument	x		х	
Investor Type – Current	0	Outgoing Instrument	0	0		
Investor Type – New	0	Incoming Instrument	0		о	
Instrument Class – Current		Outgoing Instrument	x	Х		
Instrument Class – New	Х	Incoming Instrument	x	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	х	
Root Symbol – Current		Outgoing Instrument	X	Х		
Root Symbol -New	0	0	0	Х	0	
Nasdaq Security Master	Х	Incoming Instrument	x		х	
Vehicle Legal Structure - Current		Outgoing Instrument	0	0		
Vehicle Legal Structure - New	0	Incoming Instrument	0		0	
Instrument Performance - Current		Outgoing Instrument	0	0		Managed Accounts and Separate Accounts
Instrument Performance - New	0	Incoming Instrument	0		О	Managed Accounts and Separate Accounts
Rebalance Frequency - Current		Outgoing	0	0		Managed Accounts and Separate Accounts
Rebalance Frequency - New	0	Incoming Instrument	0		о	Managed Accounts and Separate Accounts
Number of Accounts	0	Incoming Instrument	0		О	Managed Accounts and Separate Accounts
Number of Accounts Date	0	Incoming Instrument	0		0	Managed Accounts and Separate Accounts
Assets Under Management		Outgoing Instrument	0	0		
Assets Under Management Date	0	Incoming Instrument	0		0	
GIPS Compliant	х	Incoming Instrument	x		х	Managed Accounts, Separate Accounts, and Collective Investment Trusts
Insured	0	Incoming Instrument	0		0	Demand Deposit Accounts
Insured Amount	0	Incoming Instrument	0		0	Demand Deposit Accounts

	Daily List Action					Security Limitations or
Field	Addition	Replacement	Attribute Change	Deletion	Restore	Notes
Notes for Daily List entry	0	0	0	0	0	Field will be populated on needed basis.
Model Portfolio	Х	Both	х	х	х	

NFN Daily List Posting Time

The NFN Daily List posting is a manual process performed by the NFN Operations department. NFN Operations will make every attempt to post the NFN Daily List files by 12 noon, ET. On occasion, NFN Operations may modify a record after the initial NFN Daily List files are posted. Nasdaq, therefore, recommends that firms check the NFN website for NFN Daily List file updates up until 6:00 p.m., Eastern Time.

NFN Directory

Web Service Parameters

To retrieve the NFN Directory, Web Service Users shall need to enter a call with the following parameters:

- **Documentation File Name:** User should enter InstrumentDirectory.
- **Date of Directory:** Data should be entered in MM-DD-YYYY or MM/DD/YYYY format. This is an optional operator.
- File Type: Data should indicate requested file format. Options: "XML" for XML formatted text, "pipe" for pipe (|) delimited text, "CSV" for CSV formatted text, or "JSON" for JSON format.

https://nfn.nasdaq.com/servicecall/<mark>InstrumentDirectory</mark>.ashx?Date=<mark>MM-DD-YYYY</mark>&Type=pipe

Directory File Format

Nasdaq will update its NFN Directory file to reflect of the active instruments at the start of each business day. Within the file, Nasdaq will include a header row with the field names. Within the file, the individual security records will appear as outlined below in alphabetic order based on the NFN Symbol field. As the last record in the file, Nasdaq will denote the Web Service request date (MM/DD/YYYY) and Web Service request time (HHMMSS).

Data Field	Field Format	Description		
Symbol	11 bytes, alphanumeric	Denotes the current Nasdaq-assigned identifier for NFN instrument.		
Instrument Name	Text up to 150 bytes	Denotes the name of the NFN instrument as it appears on the prospectus document. Abbreviations may be used for NFN issue names over 150		
		bytes.		
Issuer Name	Text up to 75 bytes	Denotes the firm	n name for the issuer of the NFN	
		instrument.		
Instrument Type / Tier	2 bytes, alphanumeric	Denotes the NF	N security class and listing tier for the	
		instrument. Allowable values are:		
		Code	Value	
		MF	Mutual Fund – News Media List	
		MS	Mutual Fund – Supplemental List	
		\$\$	Money Market Fund – News Media List	
		\$S	Money Market Fund – Supplemental	
		+ •	List	
		US	Unit Investment Trust (UIT)	
		AN	Annuity	
		SP	Structured Product	
		AP	Alternative Investment Product (AIP)	
		EM	NextShares Exchange Traded	
			Managed Fund	
		СТ	Collective Investment Trust	
		MA	Managed Accounts	
		SA	Separate Accounts	

Data Field	Field Format	Description	
		HF	Hedge Fund
		DD	Demand Deposit Account
Instrument Code	1 byte, alphanumeric	Indicates the g	eneral investment strategy or sub-category
	, , ,		strument. The allowable values are:
		Code	Value
		Mutual Funds	s (Types MF and MS)
		0	Mutual Fund – Open End
		С	Mutual Fund – Closed End
		Y	Interval Fund
		Z	Tender Offer Fund
		Money Marke	et Funds (Types \$\$ and \$S)
			Money Market Fund – General
		A	Purpose
		G	Money Market Fund – Government Securities
		x	Money Market Fund – Tax Exempt Securities
		I Init Investme	ent Trust (Type US)
		Ontinvestine	Unit Investment Trust – Debt
		D	Securities
			Unit Investment Trust – Equity
		E	Securities
		Annuities (Ty	
		M	Annuity – Variable
		N	Annuity – Equity Indexed
			oducts (Type SP)
		R	Structured Product – Growth
		S	Structured Product – Income
		T	Structured Product – Digital
			Structured Product – Growth and
		U	Income
		V	Structured Product – Commodity / FX
		W	Structured Product – Rates
			Structured Product – Other
		Alternative In	vestment Products (Type AP)
		В	Managed Future Fund
		F	Fund of Hedge Fund
			Non-Traded REIT
		J	Non-Traditional Hedge Fund
			(Registered)
		К	Commodity Pool Fund
		P	Private Equity Offering
			xchange Traded Managed Funds (Type
		Q	NextShares
		Hedge Fund (- L

Data Field	Field Format	Description		
		Н	Hedge Fund	
		Collective Inves	tment Trust (Type CT)	
		1	Collective Investment Trust	
		Managed Acco	unts (Type MA)	
		2	Separately Managed Accounts (SMA)	
		3	Unified Managed Accounts (UMA)	
		Separate Accou	ints (Type SA)	
		4	Separate Accounts	
		Demand Depos	it Account (Type DD)	
		5	Demand Deposit Account	
Country of Issuance	2 bytes, alphanumeric		s the primary registration location for the s field, Nasdaq will use <u>ISO 3166 country</u>	
CUSIP	9 bytes, alphanumeric	Denote the curre	ent CUSIP as provided by the NFN Issuer.	
		recipient firms w token.	Nasdaq will only populate this field for vith a valid CUSIP license and entitlement	
ISIN	12 bytes, alphanumeric	Number (ISIN) for NFN Issuer. The issuance.	rent International Security Identification or the NFN Instrument as provided by the ISIN should map to the country of is optional for NFN instruments based in s.)	
Currency	3 bytes, alphanumeric	submit valuation	rency in which the NFN instrument will a data as of System Effective Date. Nasdaq <u>ub currency alphabetic codes</u> for this field. e is "USD".	
Pricing Agent	Text up to 150 bytes		ne of the firm responsible for reporting or the NFN instrument.	
Pricing Frequency	1 byte, alphanumeric	Denotes the frequency at which the NFN pricing agent is expected to report valuation information, such as net asse values (NAVs) and offer / market prices, for the instrument Allowable values are:		
		Code	Value	
		<u> </u>	Intraday	
		D	Daily (Default)	
		W	Weekly	
		В	Bi-weekly	
		М	Monthly	
		Q	Quarterly	
		S	Semi-Annually	
		A	Annually	

Data Field	Field Format	Description		
Distribution Type	2 bytes, alphanumeric	Indicates the distribution type listed in the NFN system for		
		the instrument. Allowable values are:		
		Code Value		
		C Cash		
		R Reinvest		
		W Wrap		
		RC Reinvest Cash		
		RW Reinvest Wrap		
		<pre></pre>		
Distribution Frequency	1 byte, alphanumeric	Indicates the expected distribution frequency for the instrument. Allowable values are:		
		Code Value		
		M Monthly		
		Q Quarterly		
		S Semi-Annual		
		A Annual		
		D Distributes on Termination		
		<space> Not available</space>		
Minimal Initial Subscription	11 bytes, alphanumeric	MM/DD/YYYY format. Denotes the minimum initial investment amount for a new investor in the NFN instrument. If provided, the value will be stated in \$\$\$\$\$\$.dd format (inclusive of the decimal points).		
		If unavailable, the field will be space filled.		
Minimal Incremental Subscription	11 bytes, alphanumeric	Denotes the minimum incremental investment amount for an existing investor in the NFN instrument.		
		If provided, the value will be stated in \$\$\$\$\$\$\$.dd format (inclusive of the decimal points).		
		If unavailable, the field will be space filled.		
Open To New Investors	1 byte, alphanumeric	Denotes if the NFN instrument is closed to new investor Allowable values are:		
		Code Value		
		C Closed to New Investors		
		O Open to New Investors		
		<space> Not available</space>		
Exchange Code for	4 bytes, alphanumeric	Denotes the ISO 10383 Market Identification Codes (MICs)		
Listed Instruments		for the primary listing market center for a NFN instrument, if applicable.		

Data Field	Field Format	Description		
		(Note: In the U.S., this field is typically populated only for closed-end funds / exchange traded funds or structured products.)		
Exchange Symbol For Listed Instruments	11 bytes, alphanumeric	Denotes the ticker identifier assigned by the primary listing market for the NFN instrument, if applicable.		
Newspaper Category	20 bytes, alphanumeric	Denotes the fund family heading to be used for the NFN instrument in U.S. newspaper price tables. (Note: This field is only populated for the two news media list fund types – MF and \$\$.)		
Newspaper Abbreviation	16 bytes, alphanumeric	U.S. newspaper p	tifier to be used for the NFN instrument in price tables. (Note: This field is only e two news media list fund types – MF and	
Deposit Date	10 byte, numeric	Denotes the date on which the NFN instrument is scheduled to deposit. Please note that this field is typically populated for UITs and structured products. Date field is stored in MM/DD/YYYY.		
Termination Date	10 byte, numeric	Denotes the date on which the NFN instrument is scheduled to mature or terminate. Please note that this field is typically populated for UITs and structured products. Date field is stored in MM/DD/YYYY.		
Par Value Per Unit / Share	12 bytes, alphanumeric	Denotes the par value per share or per unit for a NFN instrument. Please note that this field is typically only populated for debt-based instruments. If provided, the value will be stated in \$\$\$\$\$.dddddd format.		
		If unavailable, thi	is field will be space filled.	
NSCC Clearing Eligible	1 byte, alphanumeric		N instrument is National Securities tion (NSCC) eligible. The allowable values	
		Code	Value	
		Y	Yes. NFN issuer has indicated that this instrument is NSCC clearing eligible.	
		N	No. NFN issuer has indicated that this instrument is <u>not</u> NSCC clearing eligible.	
		<space></space>	Not available. NFN issuer did not provide NSCC eligibility status.	
Pricing Start Date	10 bytes, numeric	Denotes the date on which the NFN instrument started to remit net asset values (NAVs) and other valuation data via the NFN system.		
			this field may be blank if the instrument valuation data to the NFN system.	

Data Field	Field Format	Description			
			-	Date and Inception Date may be	
		different values, Nasdaq includes both fields in the NFN			
		Di	rectory file.		
Instrument Registration	1 byte,	De	Denotes the current regulatory agency responsible for		
	alpha	re	gistration and/c	r oversight of NFN instrument. The	
		all	owable values a	ire:	
				-	
			Code	Value	
			S	U.S. Securities and Exchange Commission (SEC)	
			Μ	Instrument is filed with Municipal Securities Rulemaking Board (MSRB)	
			С	Commodity Futures Trading	
			-	Commission (CTFC)	
			Х	SEC Registration Exemption	
			Ν	Not Registered with U.S. Regulatory	
				Agency	
			U	UCITS	
			0	Other	
Test Symbol Flag	1 byte, alphanumeric	De	enotes if the inst	rument is set up as a live or test issue	
, .				FN system. The allowable values are:	
			Code	Value	
			Y	NFN Test Symbol. Instrument is	
				intended for test use only	
			Ν	NFN Live Symbol. Instrument is set	
				up as live / production in NFN	
				system	
Investor Type	1 byte, alphanumeric		enotes the targe owable values v	t investor class for an instrument. The vill be:	
			Code	Value	
			I	Institutional Investors	
			R	Retail Investors, Both Retail and	
				Institutional Investors	
			<space></space>	Not available	
Instrument Class	50 byte, alphanumeric	De	enotes the instru	ument class for an instrument.	
Root Symbol- New	Text 13 bytes	De	enotes the Root	Symbol for NFN instruments.	
Nasdaq Security Master	10 bytes, alphanumeric	De	enotes the Nasd	aq Security Master, as created by the	
			-	ne NFN instrument as of the System	
		Ef	fective Date.		
Vehicle Legal Structure	100 bytes,	In	Indicates how the instrument is currently represented or		
	alphanumeric			a regulation body.	
Instrument	40 bytes,	In	dicates the curr	ent performance of the instrument:	
Performance	alphanumeric	-		el. This field will only be populated for	
		M	anaged Account	s and Separate Accounts.	

Data Field	Field Format	Description		
Rebalance Frequency	50 bytes, alphanumeric	Indicates the co	urrent frequency of buyir	ng and selling
		securities of th	e portfolio to set the wei	ght of each asset
		class back to its original state of investment strategy. This		
		field will only b	e populated for Manage	d Accounts and
		Separate Accounts.		
Number of Accounts	10 bytes, alphanumeric	Denotes the nu	imber of accounts for the	e instrument. This
		field will only b	e populated for Manage	d Accounts and
		Separate Accou	unts.	
Number of Accounts	Date,	Indicates the "	As of" Date associated wi	ith the Number of
Date	MM/DD/YYYY	Accounts field.	Field will be stated in MI	M/DD/YYYY format
		if available. Thi	s field will only be popula	ated if the Total Net
		Assets is provid	led.	
GIPS Compliant	1 byte,	Denotes that the	ne Instrument is complia	nt with the Global
	alpha	Investment Per	formance Standards. Thi	is field will only be
		populated for I	Managed Accounts, Sepa	rate Accounts, and
		Collective Inves	stment Trusts.	
		Code	Value	
		Y	Yes. NFN issuer has in	-
			instrument is GIP	
		N	No. NFN issuer has in	
			instrument is not G	
		<space></space>	Not available. NFN	-
			provide GIPS comp	
Insured	20 bytes, alphanumeric	Denotes wheth	er the instrument is insu	
			nand Deposit Accounts o	-
		_		
			Value	
			FDIC	
			Other	
			Not Applicable	
Insured Amount	9 bytes,		mount of investment in [-
	numeric	Account that is	being insured. Data Forr	mat: \$\$\$\$\$\$\$\$.
Model Portfolio	1 bytes, Alpha	Denotes that the	ne instrument is a Model	Portfolio
	i bytes, Aiplia	Allowable value		
		Code	Value	
		Y	Yes. The instrument	1
			is a Model Portfolio.	
		N	No. The instrument is	
			not a Model	
			Portfolio.	
			•	-
		Please note that	at Nasdaq will populate t	his field as "N" if
		not provided b	y the Issuer.	

Documentation Posting Service

Web Service Parameters

To retrieve the Documentation Posting Daily List file, Web Service Users shall need to enter a call with the following parameters:

- **Documentation File Name:** User should enter DocPost.
- Date of Documentation File: Data should be entered in MM-DD-YYYY or MM/DD/YYYY format.
- File Type: Data should indicate requested file format. Options: "XML" for XML formatted text, "pipe" for pipe (|) delimited text, "CSV" for CSV formatted text, or "JSON" for JSON format.

https://nfn.nasdaq.com/servicecall/DocPost.ashx?Date=MM-DD-YYYY&Type=pipe

Documentation Posting Service File Format

With the implementation of the NFN Daily List, Nasdaq allows Issuers / Pricing Agents to post certain financial documentation for NFN Instruments for the market data vendors to access. To facilitate the retrieval process, Nasdaq will create a daily file that lists the financial documentation with the current day's posting date.

Data Field	Field Format	Description		
Posting Date	Date, MM/DD/YYYY	Denotes the date on which the NFN Documentation List file was generated. Date field is stored in MM/DD/YYYY format.		
Posting Time	Time, HHMMSS	Denotes the time that the NFN Documentation List file was generated. The time will be stated in HHMMSS format. The time is based on US Eastern Time.		
Symbol	11 bytes, alphanumeric	Denotes the Nasdaq-assigned identifier for NFN instrument at the time of the NFN Documentation List file posting.		
		If there is an associated registration action, the Symbol will follow the following rules:		
		 For instrument addition actions, the field will match the Symbol – New value from the Daily List – Next Day file. For replacement actions, the field will reflect the Symbol - New value from the Daily List – Next Day file. 		
		 For instrument attribute change actions, the field will reflect the Symbol – Current value from the Daily List – Next Day file. 		
		 For deletion actions, the field will reflect the Symbol – Current value from the Daily List – Next Day file. 		
Instrument Name	Text up to 150 bytes	Denotes the Instrument (Issue) Name in the NFN system at the time of the NFN Documentation List file posting.		
CUSIP	9 bytes, alphanumeric	Denotes the CUSIP number in the NFN system at the time of the NFN Documentation List file posting. Please note that Nasdaq will only populate this field for recipient firms with a valid CUSIP license and entitlement token.		

Data Field	Field Format	Description	Description		
Country of Issuance	2 bytes, alphanumeric	-	as the primary registration location for the		
			is field, Nasdaq will use <u>ISO 3166 country</u>		
		<u>codes</u> .			
ISIN	12 bytes,	Denotes the Int	ernational Security Identification Number		
	alphanumeric	(ISIN) for the NFN Instrument at the time of the NFN			
		Documentation List file posting. The ISIN should map to			
		country of issua	ance.		
		(Note: This field	l is optional for NFN instruments based in		
		the United State	es.)		
Instrument Type / Tier	2 bytes, alphanumeric	Denotes the NF	N security class and listing tier for the		
		instrument on t	he stated System effective date. Allowable		
		values are:			
		Code	Value		
		MF	Mutual Fund – News Media List		
		MS	Mutual Fund – Supplemental List		
		\$\$	Money Market Fund – News Media		
			List		
		\$S	Money Market Fund – Supplemental		
			List		
		US	Unit Investment Trust (UIT)		
		AN	Annuity		
		SP	Structured Product		
		AP	Alternative Investment Product (AIP)		
		EM	NextShares Exchange Traded		
			Managed Fund		
		MA	Managed Accounts		
		СТ	Collective Investment Trust		
		SA	Separate Accounts		
		HF	Hedge Fund		
		DD	Demand Deposit Account		
Document Type	Text up to 50 bytes	Indicates the ty	pe of financial documentation being posted		
		for the NFN inst	trument. Allowable values are:		
			Value		
		Draft Prospect			
		Marketing Ma			
		Monthly Portf	-		
		Private Placement Memorandum Profile or Fact Sheet Resolution of Name Change			
			eport – Annual		
			eport - Semi-Annual		
			Additional Information		
		Statement of I			
		Statutory Pros			
		Summary Pros			
			Reorganization		
		The Declaration	on of Trust		

Data Field	Field Format	Description				
		Proof of Total	Net Assets			
		Summary Plan	Description			
		Other				
File Format	Text up to 10 bytes	Denotes the typ	be of file format used for the documentation.			
	. ,	Allowable value				
		Code	Value			
		pdf	Portable Document Format (PDF)			
System Effective Date	10 bytes,	Denotes the Sys	stem effective date or release date for the			
	alphanumeric	NFN Issuer doc	umentation. For instrument with an			
			on, the Release Date is the same as the			
		-	e date. For documentation without an			
			on, it is the date that the NFN issuer is			
		-	e to the public. Date field is stored in			
Furst Carda	Taut up to 50 history	MM/DD/YYYY f				
Event Code	Text up to 50 bytes		NFN Issuer updated its registration			
		Allowable value	the same time that it posted the document.			
		Allowable value	is are:			
			Value			
		Addition				
		Deletion				
		Replacement				
		Attribute Char	nge			
		Restore	<u> </u>			
		<space -="" as<="" no="" td=""><td>sociated action></td></space>	sociated action>			
		Note: Please re	fer to Daily List – Next Day file for details on			
		the NFN registra	ation action.			
Documentation URL	URL Address		file path from which the actual document			
			and downloaded.			
Test Symbol Flag	1 byte, alphanumeric		nstrument is set up as a live or test issue			
		currently in the	NFN system. The allowable values are:			
		Code	Value			
		Y	Value NFN Test Symbol. Instrument is			
			intended for test use only.			
		N	NFN Live Symbol. Instrument is set			
			up as live / production in NFN			
			system.			
Issuer Name	75 bytes,	Denotes the na	me of the Issuer / Sponsor for the NFN			
	alphanumeric		he time of the NFN Document Posting			
		Service file post				
Creation Date	Date, MM/DD/YYYY	Denotes the date the document was created in the NFN				
		system. Date fie	eld is stored in MM/DD/YYYY format.			

Once the Documentation List is downloaded, the user may automate access to the individual PDF documents by generating a Web Service request for each of the NFN Documentation File Names provided in the file.

NFN Root Directory

Web Service Parameters

To retrieve the NFN Root Directory, Web Service Users shall need to enter a call with the following parameters:

- Issuer CUSIP: First 6 of the CUSIP assigned to the issuer by CUSIP and registered with Nasdaq Fund Network Operations.
- Root Symbol: 13 character Root Symbol assigned by Nasdaq Fund Network Operations. This is an optional operator.
- Data Type: Data should indicate requested file format. Options: "XML" for XML formatted text, "pipe" for pipe (|) delimited text, "CSV" for CSV formatted text, or "JSON" for JSON format.

https://nfn.nasdaq.com/servicecall/RootDirectory.ashx?issuercusip=[issuercusip]&ROOTSYMBOL=[rootsymbol]&Type=pipe

Root Directory File Format

Nasdaq will update its NFN Root Directory file to reflect of the active roots. Within the file, Nasdaq will include a header row with the field names. Within the file, the individual security records will appear as outlined below in alphabetic order based on the Symbol field.

Data Field	Field Format	Description
Issuer Name	Text up to 75 bytes	Denotes the name of the Issuer / Sponsor for the NFN Root.
Product Name	150 bytes,	Denotes the name of the NFN Root.
	alphanumeric	
Investment Type and	4 bytes, alphanumeric	Denotes aggregate market capitalization and aggregate
Style		weighting of price relative to the fundamentals of this
		assets internal holdings. Allowable values are:
		Value
		Multi Cap Blend
		Multi Cap Growth
		Multi Cap Value
		Multi Cap All Valuation
		Large Cap Blend
		Large Cap Growth
		Large Cap Value
		Large Cap All Valuation
		Mid Cap Blend
		Mid Cap Growth
		Mid Cap Value
		Mid Cap All Valuation
		Small Cap Blend
		Small Cap Growth
		Small Cap Value
		Small Cap All Valuation

Data Field	Field Format	Description		
		Micro Cap Blend		
		Micro Cap Growth		
		Micro Cap Value		
		Micro Cap All Valuation		
		Not Assigned		
Economic Development	3 bytes, alphanumeric	Denotes aggregate weighting of the economic development		
Code		status of this assets internal holdings. Allowable values are:		
		Value		
		Developed Markets		
		Developing Markets		
		Emerging Markets		
		Frontier Markets		
		Global Markets		
		Not Assigned		
Sector	40 bytes,	Denotes primary equity sector focus inherent to this asset's		
	alphanumeric	investment objective. Allowable values are:		
		• Options in this field are subject to change as		
		requested by issuers.		
		• A current list of options can be found in the <u>NFN</u>		
		Application.		
Weighting Method	20 bytes,	Denotes primary weighting scheme of this asset's internal		
	alphanumeric	holdings. Allowable values are:		
		Value		
		Cap Weight		
		Equal Weight		
		Active Discretion		
		NA		
Credit Quality	3 bytes, alphanumeric	Denotes aggregate weighting of the credit quality of this		
		assets internal holdings. Allowable values are:		
		Value		
		All Quality Mix		
		High		
		Medium		
		Low		
		Not Assigned		
Maturity Range	3 bytes, alphanumeric	Denotes aggregate weighting of the stated duration of this assets internal holdings. Allowable values are:		
		Value All Duration Mix		

Data Field	Field Format	Description
		Short Duration Intermediate Long Duration Not Assigned
Fund Investment Category	60 bytes, alphanumeric	 Denotes general focus and objective of the asset's investment policy. Allowable values are: Options in this field are subject to change as requested by issuers. A current list of options can be found in the <u>NFN</u>
Industry	40 bytes, alphanumeric	Application.Denotes specific industry sector focus of this asset'sinvestment policy. Allowable values are:• Options in this field are subject to change as requested by issuers.• A current list of options can be found in the NFN
Leverage Amount Limits	5 bytes, alphanumeric	Application. Denotes amount of leverage inherent to this asset's aggregate internal holdings. Allowable values are:
		Value 1.00x 1.25X 1.50X 2X 3X 4X 5 characters (e.g.1.20X) Not Assigned
Liquidity Categories	5 bytes, alphanumeric	Denotes estimate of this asset's ability to be bought or sold. Allowable values are: Value Highly Liquid Investments Moderately Liquid Investments Less Liquid Investments Illiquid Investments Not Assigned
Macro Region	4 bytes, alphanumeric	Denotes aggregate weighting of the regional exposures of this asset's internal holdings. Allowable values are: Value Asia Europe Global

Data Field	Field Format	Description	
		Latin America	
		Pacific (Excluding Japan)	
		MEA	
		Nordic	
		North America	
		Non-United States	
		Not Assigned	
Portfolio Management	3 bytes, alphanumeric	Denotes attributes of this asset's internal portfolio	
Style		construction. Allowable values are:	
		Value	
		Active Qualitative	
		Passive Qualitative	
		Active Quantitative	
		Not Assigned	
Issuer Benchmark Index	15 bytes,	Denotes an array of modern portfolio statistics of this asset	
1	alphanumeric	versus the benchmark chosen by the issuer.	
	(inclusive of spaces)		
Nasdaq Benchmark	15 bytes,	Denotes an array of modern portfolio statistics of this asset	
Index 1	alphanumeric	versus the benchmark chosen by Nasdaq.	
	(inclusive of spaces)		
Issuer Benchmark Index	15 bytes,	Denotes an array of modern portfolio statistics of this asset	
2	alphanumeric	versus an alternative benchmark chosen by the issuer.	
	(inclusive of spaces)		
Nasdaq Benchmark 2	Up to 15 bytes,	Denotes an array of modern portfolio statistics of this asset	
	alphanumeric	versus an alternative benchmark chosen by Nasdaq.	
	(inclusive of spaces)		
Portfolio Type	3 bytes, alphanumeric	Denotes long term portfolio alignment concerning assets	
		classes. Allowable values are:	
		Value	
		Balanced / Multi-Asset	
		Equity	
		Fixed Income	
		Money Market	
		Alternatives	
		Hedge Funds	
		Real Estate	
		Other Fund	
		Not Assigned	
Root Symbol	13 bytes,	Denotes 13 character symbol assigned to the Root by NFN.	
	alphanumeric		

Data Field	Field Format	Description	
Product Website	Up to 2048 bytes, alphanumeric	Denotes internet address to be used by public investors.	
Investment Focus	40 bytes, alphanumeric	 Denotes long term investment category governed by management. Allowable values are: Options in this field are subject to change as requested by issuers. A current list of options can be found in the <u>NFN Application</u>. 	
Peer Group	100 bytes, alphanumeric	 Denotes assets sharing similar investment categories. Options in this field are subject to change as requested by issuers. A current list of options can be found in the <u>NFN Application</u>. 	
Total Real Estate Area	12 bytes, numeric	Denotes the total area for the fund in square feet or square meters.	
Unit of Measurement	13 bytes, alpha	Denotes the unit of measurement for the Total Real Estate Area field.	
		Value Square Feet Square Meters	
Real Estate Portfolio Occupancy	XXX.XXX	Denotes the percentage of rented or used space to the Total Real Estate Area as of the Real Estate Portfolio Occupancy Date.	
Real Estate Portfolio Occupancy Date	Date, MM/DD/YYY	Denotes the date for the Real Estate Portfolio Occupancy.	
Zero Redemption	1 byte, alpha	Denotes the fund eligibility for Zero Redemption. Available values are:	
		Code Value	
		Y Yes. NFN issuer has indicated that this fund eligible for Zero Redemption.	
		N No. NFN issuer has indicated that this fund is not eligible for Zero Redemption.	
		<pre><space> Not available. NFN Issuer did not provide Zero Redemption status.</space></pre>	
Zero Redemption Months	2 bytes, numeric	Denotes the number of months for Zero Redemption.	
Zero Redemption Fee	XXX.XXX	Denotes the Zero Redemption fee as a percentage for the designated time frame.	

Data Field	Field Format	Description		
Early Redemption Term	1 byte, alpha	Denoted if the f Available values	the fund is eligible for Early Redemption. alues are:	
		Code	Value	
		Y	Yes. NFN issuer has indicated that this fund eligible for Early Redemption.	
		N	No. NFN issuer has indicated that this fund is not eligible for Early Redemption.	
		<space></space>	Not available. NFN Issuer did not provide Early Redemption status.	
Early Redemption Term	2 bytes, numeric	Denotes the sta	rt month, in number of months, for the Early	
Start Month		Redemption Ter	m.	
Early Redemption Term End Month	2 bytes, numeric	Denotes the end Redemption Ter	d month, in number of months, for the Early m.	
Early Redemption Term	XXX.XXX	Denotes the Ear	ly Redemption Term fee as a percentage for	
Fee		the designated t	time frame.	
Tiered Redemption	1 byte, alpha	Denotes if the fu	und is eligible for Tiered Redemption.	
		Available values are:		
		Code	Value	
		Y	Yes. NFN issuer has indicated that this fund eligible for Tiered Redemption.	
		N	No. NFN issuer has indicated that this fund is not eligible for Tiered Redemption.	
		<space></space>	Not available. NFN Issuer did not provide Tiered Redemption status.	
Tiered Redemption	2 bytes, numeric	Denotes the month, in numbers of months, in which Tiere		
Start Month		Redemption beg	gins.	
Tiered Redemption End Month	2 bytes, numeric	Denotes the month, in numbers of months, in which Tiered Redemption ends.		
Tiered Redemption Fee	XXX.XXX	Denotes the Tiered Redemption Fee as a percentage for the designated time frame.		
Full Redemption Months	3 bytes, numeric	Denotes the months, in numbers of months for Full Redemption.		
Up Front Commission	XXX.XXX	Denotes the upfront offering fees of the fund as a percentage.		
Trailing Commission	XXX.XXX	Denotes the training percentage.	iling commission for the fund as a	
Management Oversight	50 bytes, alphanumeric	Denotes the ma options are:	nagement over sight of the fund. Available	

Data Field	Field Format	Description	
		Value	
		Independent Board of Directors	
		Independent Board of Directors (by proxy)	
		CEO/Management	
		Not Assigned	
Non-Traded REIT	100 bytes,	Denotes the Non-Traded REIT Structure. Available options	
Structure	alphanumeric	are:	
		Value	
		Non-Traded REIT with Perpetual Life	
		Non-Traded REIT with Life Cycle	
		Offering Type	
		Not Assigned	
Investor Suitability	100 bytes,	Denotes the investor suitability for the fund.	
	alphanumeric		

Root Directory Dynamic File Format

Within the Root Directory file are dynamic tables that provide information for the multi select options in the Root directory. These files follow the above options with headers.

• The headers for the Root Directory files are 5 "=", followed by the Category Name, padded with "=" to 100 characters.

Asset Category

Denotes the broad focus and objective of this asset's exposure.

For a current list of options can be found in the NFN Application.

Data Field	Field Format	Description
Header	100 characters	5 "=", "Asset Category", Padded "=" to 100
Asset Category	40 bytes, alphanumeric	Denotes the options for this field. Options in this field are subject to change as requested by issuers. A current list of options can be found in the <u>NFN</u> <u>Application.</u>
Root Symbol	13 bytes, alphanumeric	Denotes the Root Symbol assigned by Nasdaq.

Portfolio Top Holdings

Denotes the broad focus and objective of this asset's exposure. NFN Portfolio Top Holdings download will be limited to the top 20 holdings. For full holdings report, you can send a request to <u>NFNOps@nasdaq.com</u>.

Data Field	Field Format	Description	
Header	100 characters	5 "=", "Portfoli	o Top Holdings", "=" to 100
Root Symbol	13 bytes, alphanumeric	Denotes the Ro	oot Symbol assigned by Nasdaq.
CUSIP	9 bytes, alphanumeric	Denotes the Cl	JSIP number for the security.
		*Note: Nasdaq	will only populate this field for recipient
		firms with a va	lid CUSIP license and entitlement token.
ISIN	12 bytes, alphanumeric	Denotes the IS	IN for the security.
Security Ticker	30 bytes, alphanumeric	Denotes the m	arket ticker for the security.
Percent	28 bytes, alphanumeric	Expressed as a	percentage. Percentage value compared to
		net assets of th	ne Fund.
		XXX.xxxxxxxx	xxxxxxxxxxxxxx
Update Date	Date, MMDDYYYY	Reporting perio	od, date as of which information is reported.
Security Name	Text up to 150	Denotes the Is	sue Name for the security.
	characters		
Asset Category	10 bytes, alphanumeric	Denotes the ty	pe of assets that are categorized by similar
		characteristics	
		VALUE	CODE DESCRIPTION
		STIV	Short-term investment vehicle
		RA	Repurchase agreement
		EC	Equity-common
		EP	Equity-preferred
		DBT	Debt
		DCO	Derivative-commodity
		DCR	Derivative-credit
		DE	Derivative-equity
		DFE	Derivative-foreign exchange
		DIR	Derivative-interest rate
		DO	Derivatives-other
		SN	Structured note
		LON	Loan
		ABS-MBS	ABS-mortgage backed security
		ABS-APCP	ABS-asset backed commercial paper
		ABS-CBDO	ABS-collateralized bond/debt obligation
		ABS-O	ABS-other
			ABS-other Commodity
		ABS-O	
		ABS-O COMM	Commodity
Issuer Category	10 bytes, alphanumeric	ABS-O COMM RE OTHER Denotes the ty	Commodity Real estate
Issuer Category	10 bytes, alphanumeric	ABS-O COMM RE OTHER Denotes the ty sells securities	Commodity Real estate A brief description is provided. pe of legal entity that develop, registers and to finance its operations.
Issuer Category	10 bytes, alphanumeric	ABS-O COMM RE OTHER Denotes the ty	CommodityReal estateA brief description is provided.pe of legal entity that develop, registers and

Data Field	Field Format	Description	
		USGA	U.S. government agency
		USGSE	U.S. government sponsored entity
		MUN	Municipal
		NUSS	Non-U.S. sovereign
		PF	Private fund
		RF	Registered fund
		OTHER	A brief description is provided.

Portfolio Allocation

The Assets internal allocation between stocks, bonds and other.

Data Field	Field Format	Description	
Header	100 characters	5 "=", "Portfolio Stratification", "=" to 100	
Root Symbol	13 bytes,	Denotes the Root Symbol assigned by Nasdaq.	
	alphanumeric		
Description	20 bytes,	Denotes the option category for the percentage	
	alphanumeric	Ontinue	
		Options Cash	
		Commodities	
		Currencies	
		Derivatives	
		Domestic Bond	
		Domestic Stock	
		Foreign Bond	
		Foreign Stock	
		Other	
		Hospitality – Hotel	
		Hospitality – Restaurant	
		Industrial	
		Office	
		Medical	
		Residential	
		Retail (Single Tenant)	
		Retail (Multi-Tenant)	
		Senior Secured (1 st Lien)	
		Senior Secured (2 nd Lien)	
		Secured Bonds	
		Unsecured Bonds	
		Bank Loan	
		Convertible	
		Preferred Stock	

Data Field	Field Format	Description
Allocation	XXX.XXX	Expressed as a percentage, total of all Portfolio Stratification options. Percentages will not exceed 100%.
Update Date	Date, MMDDYYY	Indicates the date the Portfolio Stratification percentages were submitted to NFN.

Country of Sale

Denotes the Country in which the UCITS is available for sale.

Data Field	Field Format	Description	
Header	100 characters	5 "=", "ISO Region/State", "=" to 100	
Root Symbol	13 bytes,	Denotes the Root Symbol assigned by Nasdaq.	
	alphanumeric		
Region State Code	2 bytes, alphanumeric	Denotes the two character U.S. state abbreviation listed as	
		the primary registration location for the issuance.	
Region State	20 Bytes,	Denotes the name of the state of the primary registration	
	alphanumeric	location for the issuance.	
Country Code	3 bytes, alphanumeric	Denotes the three character country code listed as the	
		primary registration location for the issuance.	
		A list of options can be found in the <u>NFN Application</u> .	
Country	100 bytes,	Denotes the name of the country of the primary registration	
	alphanumeric	location for the issuance.	

Region Weight

The assets percent of total exposure to each specific regional location.

Data Field	Field Format	Description	
Header	100 characters	5 "=", "Region Weight", "=" to 100	
Root Symbol	13 bytes,	Denotes the Root Symbol assigned by Nasdaq.	
	alphanumeric		
Region	50 bytes,	Denotes the region name.	
	alphanumeric	A list of options can be found in the NFN Application.	
Region Weight	XXX.XXX	Denotes the percentage of exposure to the specific region,	
		expressed as a percentage. Percentage will not exceed	
		100%.	

Management

The team of professional in charge of this investment discipline.

Data Field	Field Format	Description	
Header	100 characters	5 "=", "Management", "=" to 100	
Root Symbol	13 bytes, alphanumeric	Denotes the Root Symbol assigned by Nasdaq.	
Fund Manager	30 bytes, alphanumeric	Denotes the Name of the professional in charge of the investment discipline	
Management Tenure	Up to 2147483647	Denotes the number of years management has serviced this fund.	
Fund Manager Date	Date, MMDDYYY	Denoted the date that the fund manager began managing the fund.	

Issuer Directory

Web Service Parameters

To retrieve the Issuer Directory, Web Service Users shall need to enter a call with the following parameters:

- Issuer Directory File Name: User should enter Issuer.
- File Type: Data should indicate requested file format. Options: "XML" for XML formatted text, "pipe" for pipe (|) delimited text, "CSV" for CSV formatted text, or "JSON" for JSON format.

https://nfn.nasdaq.com/servicecall/IssuerDirectory.ashx?type=PIPE

Issuer Directory File Format

Nasdaq will update its Issuer Directory file to reflect of the active Issuer. Within the file, Nasdaq will include a header row with the field names. Within the file, the individual records will appear as outlined below in alphabetic order based on the Issuer Name field.

Data Field	Field Format	Description	
Issuer Name	11 bytes,	Denotes the name of the Issuer / Sponsor as registered with	
	alphanumeric	NFN.	
Description	1000 bytes,	Denotes the description of the Issuer.	
	alphanumeric		
Website	Up to 2048 bytes,	Denotes the URL for the Issuer's public website.	
	alphanumeric		
Headquarters Location	300 bytes,	Denotes the physical address of the Issuer headquarter	
	alphanumeric	location.	
Total Assets Under	10 bytes, numeric	Denotes the Total Assets Under Management for the Issuer.	
Management			
Total Assets Under	Date,	Denotes the Date of Total Assets Under Management for	
Management Date	MM/DD/YYYY	the Issuer.	
In Business Since	4 bytes, numeric	Denotes the year that the Issuer began operation.	

Data Field	Field Format	Description
Investor Relations	20 bytes, numeric	Denotes the phone number for Investor Relations.
Phone		
Investor Relations	400 bytes,	Denotes the email address for Investor Relations.
Email	alphanumeric	
Live Instruments Count	11 bytes,	Denotes the number of Live instruments listed with NFN
	alphanumeric	under the issuer.
Investor Invested	11 bytes, numeric	Denotes the amount of investor assets invested.
Assets		

Valuation Report Web Service Calls

Web Service Parameters

To retrieve the Valuation Reports, Web Service Users shall need to enter a call with the following parameters:

- **Valuation Report File Name:** User should enter ValuationReportFund, or ValuationReportMoneyMarket.
- File Type: Data should indicate requested file format. Options: "XML" for XML formatted text, "pipe" for pipe (|) delimited text, "CSV" for CSV formatted text, or "JSON" for JSON format.

https://nfn.nasdaq.com/servicecall/valuation.ashx?reportname=ValuationReportFund&Type=pipe

https://nfn.nasdaq.com/servicecall/valuation.ashx?reportname=ValuationReportMoneyMarket&Type=pipe

https://nfn.nasdaq.com/servicecall/valuation.ashx?reportname=ValuationReportDIV&Type=pipe

https://nfn.nasdaq.com/servicecall/valuation.ashx?reportname=ValuationReportDST&Type=pipe

Today's Price History Report

Web Service Parameters

To retrieve the Ex-Date Report, Web Service Users shall need to enter a call with the following parameters:

- Today's Price History File Name: User should enter CurrentActivity.
- Parameters: Today's Price History can be pulled by MPID, Symbol or Test Flag
- File Type: Data should indicate requested file format. Options: "XML" for XML formatted text, "pipe" for pipe (|) delimited text, "CSV" for CSV formatted text, or "JSON" for JSON format.

https://nfn.nasdaq.com/servicecall/CurrentActivity.ashx?MPID=[MPID]&Type=PIPE

https://nfn.nasdag.com/servicecall/CurrentActivity.ashx?Symbol=ABCDX&Type=PIPE

https://nfn.nasdaq.com/servicecall/CurrentActivity.ashx?testflag=true/false&Type=PIPE

Ex Date Report

Web Service Parameters

To retrieve the Ex-Date Report, Web Service Users shall need to enter a call with the following parameters:

- Ex-Date File Name: User should enter ExDate.
- **Date for Ex-Date File:** User should enter the ex-date filter to be applied to the report. Data should be entered in MM-DD-YYYY or MM/DD/YYYY format. Please note the following report date limitations:
 - The Ex-Date Report will only return Dividend/Interest or Capital Distribution records entered into the NFN system on or after February 2017.
- File Type: Data should indicate requested file format. Options: "XML" for XML formatted text, "pipe" for pipe (|) delimited text, "CSV" for CSV formatted text, or "JSON" for JSON format.

https://nfn.nasdaq.com/servicecall/exdate.ashx?type=CSV&date=MM/DD/YYYY

Ex-Date Report File Format

Nasdaq allows NFN pricing agents to enter advance notifications of Dividend/Interest and Capital Distribution actions. To ensure that the market data community has access to these corporate actions on the appropriate exdate, Nasdaq is adding the Ex-Date Report to the NFN Daily List product.

Data Field	Field Format	Description		
Symbol	11 bytes, alphanumeric	Denotes the Nasdaq-assigned identifier for NFN instrument reflected in the Dividend/Interest or Capital Distribution record.		
CUSIP	9 bytes, alphanumeric	Denotes the CUSIP number for the NFN instrument in the NFN system at the time that the Ex-Date Report was generated. Please note that Nasdaq will only populate this field for recipient firms with a valid CUSIP license and entitlement token.		
Instrument Type / Tier	2 bytes, alphanumeric	Denotes the NFN Fund Type and Listing Tier for the NFN instrument in the NFN system at the time that the Ex-Date Report was generated. The allowable values are:		
		Code	Value	
		MF	Mutual Fund – News Media List	
		MS	Mutual Fund – Supplemental List	
		\$\$	Money Market Fund – News Media List	
		\$S	Money Market Fund – Supplemental List	
		US	Unit Investment Trust (UIT)	
		AN	Annuity	
		SP	Structured Product	
		AP	Alternative Investment Product (AIP)	
		EM	NextShares Exchange Traded Managed	
			Fund	
		MA	Managed Accounts	
		СТ	Collective Investment Trust	
		SA	Separate Accounts	
		HF	Hedge Fund	
		DD	Demand Deposit Account	

Data Field	Field Format	Description				
Instrument Code	1 byte, alphanumeric	Denotes the In	strument Code for the NFN instrument in the			
			NFN system at the time that the Ex-Date Report was			
			generated. The allowable values are:			
		Code	Value			
		Mutual Funds	s (Types MF and MS)			
		0	Mutual Fund – Open End			
		C	Mutual Fund – Closed End			
		Y	Interval Fund			
		Z	Tender Offer Fund			
		Money Marke	et Funds (Types \$\$ and \$S)			
		Α	Money Market Fund – General Purpose			
		G	Money Market Fund – Government Securities			
		х	Money Market Fund – Tax Exempt Securities			
		Unit Investme	ent Trust (Type US)			
		D	Unit Investment Trust – Debt Securities			
		_	Unit Investment Trust – Equity			
		E	Securities			
		Annuities (Ty	pe AN)			
		M	Annuity – Variable			
		N	Annuity – Equity Indexed			
		Structured Pro	oducts (Type SP)			
		R	Structured Product – Growth			
		S	Structured Product – Income			
		Т	Structured Product – Digital			
		U	Structured Product – Growth and			
			Income			
		V	Structured Product – Commodity / FX			
		W	Structured Product – Rates			
			Structured Product – Other			
			vestment Products (Type AP)			
		B	Managed Future Fund			
		F	Fund of Hedge Fund			
			Non-Traded REIT			
		J	Non-Traditional Hedge Fund			
			(Registered)			
		К	Commodity Pool Fund			
		P	Private Equity Offering			
			ded Managed Funds (Type EM)			
		Q	NextShares			
		Hedge Fund (
		H	Hedge Fund			
			estment Trust (Type CT)			
		1	Collective Investment Trust			
			counts (Type MA)			
		2	Separately Managed Accounts (SMA)			
		3	Unified Managed Accounts (UMA)			

NFN Daily List

	Separate A	
	Separate Accounts (Type SA)	
	4	Separate Accounts
	Demand De	posit Account (Type DD)
	5	Demand Deposit Account
Text up to 15 bytes	Denotes the	type of distribution message generated for
		he stated ex-date. The allowable values are:
	-,	
	Code	Definition
	Income	Dividend/Interest
	Capital	Capital Distribution
1 byte, alphanumeric	Denotes the	Action value entered by the NFN pricing agent
		nd NFN message format. The allowable values
	are as follow	-
	Code	Definition
	N	New corporate action record
	С	Corrected corporate action record
	Х	Cancelled corporate action record
Date, MM/DD/YYYY	Denotes the	Ex-Date reported for the Dividend/Interest or
	Capital Distri	ibution message.
	(Note: The re	eport content is based on the user provided
	value for this	s field.)
Date, MM/DD/YYYY	Denotes the	date on which dividends, interest payments or
-or-	distributions	is expected to be distributed to the NFN
NA	instrument's	shareholders of record.
	If a payment	date is reported, this field format will be
	MM/DD/YYY	Ύ.
		nt date is entered, this field will be populated as
Date, MM/DD/YYYY		date on which shareholders must hold fund
-or-	shares to rec	eive dividend, interest or distributions.
NA		
		ate is reported, this field format will be
	MM/DD/YYY	Y.
		date is entered, this field will be populated as
		reinvestment date for the dividend or
	distribution	(if applicable).
NA	If a reliance to	next data is reported, this field formation the
		nent date is reported, this field format will be
		τ.
	If no roinus	tmont data is antored this field will be
	ii no reinves	tment date is entered, this field will be
	nonulated -	- "NIA"
	populated as	
Date, MM/DD/YYYY	Denotes the	s "NA". NFN system date associated with the record event.
_	Date, MM/DD/YYYY -or- NA Date, MM/DD/YYYY -or-	Text up to 15 bytesDenotes the symbol on thI byte, alphanumericCode Income Capital1 byte, alphanumericDenotes the in the inbour are as follow1 byte, alphanumericCode N C XDate, MM/DD/YYYYDenotes the Capital Districe (Note: The recovalue for this Date, MM/DD/YYYYDate, MM/DD/YYYYDenotes the Capital Districe (Note: The recovalue for this Date, MM/DD/YYYYDate, MM/DD/YYYYDenotes the Capital Districe (Note: The recovalue for this Date, MM/DD/YYYYDate, MM/DD/YYYYDenotes the distributions

Data Field	Field Format	Description		
		-	be = New, the Entry Date field will reflect the	
		date that the record was initially entered into the NFN		
		system.		
		If UpdateType = Corrected or Cancelled, the Entry Date field		
		will reflect the date that the record was last updated in the		
		NFN system.		
Currency	Alphanumeric	Denotes the currency in which the NFN instrument will		
			ation data as of System Effective Date. Nasdaq	
			GitHub currency alphabetic codes for this field.	
Cash Distribution Type	Alphanumeric	The default value is "USD". This field indicates the type of cash distribution being		
////			the following cash distribution fields. Allowable	
		values will b	e:	
		Code	Definition	
		Dividend	Cash Dividend	
		Interest	Interest Income	
		Special	Special Cash Dividend	
		NA	Not applicable, no cash distribution being	
			reported.	
			Please note that Nasdaq will populate this	
			field as "NA" in the event of a stock only	
			dividend or capital distribution.	
Total Cash Distribution	13 bytes,		total cash dividend or total interest distribution	
	alphanumeric		ed for the NFN instrument. Firms may report	
		the fields the	wn of cash dividends / interest distribution in at follow	
		the news th		
		At the time of	of data entry, Total Cash Distribution is reported	
		as \$\$\$\$\$.d	dddd.	
		Please note	that Nasdaq will populate this field as "NA" in	
			a stock only dividend or capital distribution.	
Non-Qualified Cash	13 bytes,		portion of the cash dividend or interest income	
Distribution	alphanumeric		as ordinary income to the shareholder. Please	
			is value should be entered as a dollar amount	
		(not a perce	ntage).	
		At the time of	of data entry, non-qualified cash distribution is	
			\$\$\$\$\$.ddddd.	
			ied cash distribution is not entered, the field lated as "NA".	
Qualified Cash	13 bytes,		portion of the cash dividend or interest that is	
Distribution	alphanumeric		ualified dividend to shareholder. Please note	
			ue should be entered as a dollar amount (not a	
		percentage)		

Data Field	Field Format	Description
		At the time of data entry, qualified cash distribution is entered as \$\$\$\$.dddddd.
		If qualified cash distribution is not entered, the field will be populated as "NA".
Tax-Free Cash Distribution	13 bytes, alphanumeric	Denotes 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 dollar amount (not a percentage).
		At the time of data entry, tax free cash distribution is entered as \$\$\$\$\$.dddddd.
		If tax free cash distribution is not entered, the field will be populated as "NA".
Ordinary Foreign Tax Credit	13 bytes, alphanumeric	Denotes 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 dollar amount (not a percentage).
		At the time of data entry, ordinary foreign tax credit is entered as \$\$\$\$.dddddd.
		If ordinary foreign tax credit is not entered, the field will be populated as "NA".
Qualified Foreign Tax Credit	13 bytes, alphanumeric	Denotes 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 dollar amount (not a percentage).
		At the time of data entry, qualified foreign tax credit is entered as \$\$\$\$\$.dddddd.
		If qualified foreign tax credit is not entered, the field will be populated as "NA".
Stock Dividend Ratio	11 bytes, alphanumeric	 Denotes the stock split/dividend ratio for a NFN instrument. The field format is as follows: If a stock split/dividend is entered, the amount will be stated in the following numeric format: \$\$\$\$.dddddd. Examples: 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". If no stock split/dividend is entered, the field will be populated as "NA".

Data Field	Field Format	Descrip	tion			
Short Term Capital Gain	13 bytes,	-		e amount of short-term capital ga	ins	
	alphanumeric	for a NF	N instrument	. A short-term capital gain is a pro	ofit	
		resulting from the sale of securities held in the fund				
			o for less than			
	At the time of data entry, Short To \$\$\$\$\$.dddddd.			ntry, Short Term Gain is reported a	as	
				daq will populate this field as "NA' ered for stated ex-date.	" if no	
Long Term Capital Gain	13 bytes, alphanumeric		-	ital gain for the NFN instrument t der at the long-term capital gains		
			ime of data er .dddddd.	ntry, Long Term Gain is reported a	S	
				daq will populate this field as "NA' ered for stated ex-date.	" if no	
Unallocated Distributions	13 bytes, alphanumeric	Denote	-	of unassigned term gains being		
		At the time of data entry, Unallocated Distributions are				
		reported as \$\$\$\$\$.dddddd.		ddddd.		
		Please note that Nasdaq will populate this field as "NA" if no				
		unalloc	ated distributi	on value is entered for stated ex-	date.	
Return Of Capital	13 bytes,			of return of capital (ROC) to the N	IFN	
	alphanumeric			lders. Please note that this value		
		should	be entered as	a dollar amount (not a percentag	e).	
			ime of data er .dddddd.	ntry, Return of Capital is reported	as	
				daq will populate this field as "NA' tered for stated ex-date.	" if no	
Issuer Name	Text up to 150 bytes	Denote	s the NFN issu	er name associated with the NFN		
				e that the Ex-Date Report was		
Duising Assut		generat			ha	
Pricing Agent	Text up to 150 bytes			ing agent name associated with tl e time that the Ex-Date Report wa		
		generat		e time that the Ex-Date Report wa	35	
Status	Text up to 10 bytes	-		nstrument status in NFN system.		
			ole values are:	-		
			Value	Definition		
			Live	Live / production security		
			Test	Test security		
ISIN	Text up to 12 bytes			er name associated with Denotes		
				ument at the time of the Daily Lis		
		posting	. The ISIN shou	uld map to the country of issuance	e.	

Data Field	Field Format	Description	n		
Nasdaq Security Master	10 bytes, alphanumeric	Denotes the Nasdaq Security Master, as created by the NFN system, for the NFN instrument as of the System Effective Date.			
Model Portfolio	1 bytes, Alpha	Denotes that the instrument is a Model Portfolio. Allowable fields are:			Allowable
			Code	Value	
			Y	Yes. The instrument is a Model Portfolio.	
			N	No. The instrument is not a Model Portfolio.	
		Please not	e that Nasdaq	will populate this field as	"N" if not
		provided b	y the Issuer.		

NFN Ex-Date Report Timing

The NFN Ex-Date Report is automatically updated during the NFN U.S. reporting session as NFN pricing agents enter dividend and capital distribution data enter data into the system. For the most complete data set, Nasdaq recommends that firms pull the ex-date report between after the U.S. session close at 8:00 p.m., ET.

Appendix	A –I	Docume	ntation	Version	Control	Log	
						0	

Date	Version Information
November 23, 2010	Initial release of MFQS Daily List / MFQS Registration Service specification.
April 7, 2011	Updated "Architecture" section of document to address user security set for NFN Daily List.
May 26, 2011	Updated the URL addresses for the NFN Daily List for the June 13, 2011 release.
	Added Ex-Date Report file format to the NFN Daily List specification.
June 16, 2011	Corrected event code language for an instrument modification from
	"Change Request" to "MFQS Attribute Change".
	Updated NFN code sample to include a security certificate statement.
	Updated the URL Address statements to use
	https://www.nasdagMFQS.com (rather than
	https://beta.nasdaqMFQS.com).
	Added Table of Contents and Hours of Operation section to document.
July 19, 2011	Added section on the NFN Daily List transition with a hyperlink to the data
	<u>comparison document</u> that shows how fields map from the legacy NASDAQ
	Trader file to the new NFN Daily List file.
May 18, 2012	Updated NFN Daily List file format to reflect new Event Action Codes to be
	release on or about June 24, 2012. As noted in the release notes section of
	the document, Nasdaq will be making the following changes to the Event
	Code values:

Event Code	Supported in Initial Release	Supported in June 2012 Release
Addition	Yes	Yes
Anticipated Addition	Yes, but not used	No
Deletion	Yes	Yes
UIT Replacement	Yes	Yes
MFQS Attribute Change	Yes	Yes
Correction – Addition	Yes	No
Correction – Deletion	Yes	No
Correction – UIT Replacement	Yes, but not used	No
Correction – NFN Attribute Change	Yes	No
Restore	No	Yes
Withdraw – Addition	No	Yes
Withdraw – Deletion	No	Yes
Withdraw – UIT	No	Yes
Replacement		
Withdraw – NFN Attribute Change	No	Yes
Withdraw – Restore	No	Yes

June 13, 2012

For the NFN Daily List file formats, Nasdaq updated the Documentation Available field description to make it clear that while the flag may appear on Advanced and Next Day file versions, the NFN system will not actually post the supporting document until the stated effective date.

	Within the Documentation List file format, Nasdaq added a value to the Documentation Type field list of "P-DRFT" for a draft prospectus. In addition, Nasdaq added a new file format option of "ExcelXML" for a				
		added a new file format op file to the document.	tion of "ExcelXML" for a		
February 11, 2013	 For the March 11, 2013 release, Nasdaq added new Issue Type and Issue Category field values for the new Alternative Investment Product (AIP) asset class to NFN Daily List, NFN Directory and other file formats. At the request of the market data community, Nasdaq also new NSCC related fields to the NFN Daily List and NFN Directory files formats. In addition, Nasdaq also added a new NFN System Start Date field to the NFN Directory file format. Please note that the new values and fields are denoted in red typeface 				
April 15, 2013	within this document. For the NFN Documentation Post file, Nasdaq updated the allowable DocumentationType and AssociatedAction values for website consistency reasons. Nasdaq also updated the field names to match the actual file headers.				
July 5, 2013		e following field values to re or about September 9, 201	eflect NFN system changes to 3:		
	File Name NFN Daily List – All Versions	Field Names MFQS Event Code	Update Changed value from "UIT Replacements" to "Replacements" as Nasdaq will support the replacement application		
	NFN Daily List –		Changed value from "UIT Replacements" to "Replacements" as Nasdaq will support the		
	NFN Daily List –		Changed value from "UIT Replacements" to "Replacements" as Nasdaq will support the replacement application option for Structured Product instruments as well as Unit Investment		
	NFN Daily List – All Versions NFN Daily List –	MFQS Event Code NFN Issue Category – Current, NFN Issue Category –	Changed value from "UIT Replacements" to "Replacements" as Nasdaq will support the replacement application option for Structured Product instruments as well as Unit Investment Trusts. Updated Issue Category values for Structured Products instruments to reflect new industry		

NFN issuer advises Nasdaq of the

postponement after the System effective date.

NFN Daily List	 CUSIP for Merger 	Added note to reflect that
All Versions		CUSIP field will only be
		populated if the NFN
		Daily List recipient firm
		has a valid CUSIP license
		and entitlement token.
NFN Directory	NFN Issue Code	Updated NFN Issue Code
		values for Structured
		Products instruments to
		reflect new industry
		recommendations.
NFN Directory	CUSIP	Added note to reflect that
		CUSIP field will only be
		populated if the NFN
		Daily List recipient firm
		has a valid CUSIP license
		and entitlement token.
NFN Documen	t CUSIP	Added note to reflect that
Posting Service	2	CUSIP field will only be
Ū		populated if the NFN
		Daily List recipient firm
		has a valid CUSIP license
		and entitlement token.
NFN Documen	t AssociatedAction	Changed value from "UIT
Posting Service	4	Replacement" to
		"Replacement"
Ex Date Report	DistributionType	Added value of "Special"
		for special cash
		distributions reported by
		the NFN pricing agent for
		the instrument.
Ex Date Report	FundCode	Updated FundCode values
		for Structured Products
		instruments to reflect
		new industry
		recommendations.
Ex Date Report	CUSIP	Added note to reflect that
		CUSIP field will only be
		populated if the NFN
		Daily List recipient firm
		has a valid CUSIP license
		has a valid CUSIP license and entitlement token.
Updated file for	mats for NFN Daily List, NFN	and entitlement token.
	-	and entitlement token. I Symbol Directory and NFN Ex-
Date Report file	s to support test symbols. A	and entitlement token. I Symbol Directory and NFN Ex- Iso standardized NFN field
Date Report file	s to support test symbols. A oducts and modify file form	and entitlement token. I Symbol Directory and NFN Ex-

NFN Daily List file format changes:

• Add fields for Test Symbol Flag, Symbol Reuse Flag, Instrument Registration and Total Net Assets – Inception Date.

May 1, 2014

	Manage Fund M • Standar • Standar Open-e to "O". change	Fields for Fund Manager Last Name – Current, Fund er First Name – Current, Fund Manager Last Name – New, anager First Name – New, Fund Manager Start Date. rdize field names. rdize mutual fund codes for Instrument Code field. For nd mutual funds, the Instrument Code will change from "Z" For Closed-end mutual funds, the Instrument Code will from "Y" to "C". tion Post List file format changes: d for Test Symbol Flag.			
	Standar	dize field names.			
	 Add nev Total N Suppor Delete n Name. Standar 	e format changes: w fields for Test Symbol Flag, Instrument Registration, and et Assets – Inception Date. t fields for Distribution Type and Distribution Frequency. fields for Fund Manager Last Name and Fund Manager First rdized field names. rdized mutual fund codes for Instrument Code field as noted			
	StandarStandar	d for Status dize field names dize codes for Instrument Type / Tier, Instrument Code,			
		ition Message, and Action fields to match NFN Daily List / rectory files.			
March 6, 2015	-	nstrument Type and Instrument Code values for a new asset Traded Managed Fund (ETMF), to be supported in late			
May 15, 2015	delimiters. The N	Nasdaq updated its NFN symbology for ETMFs to be 7-characters with no delimiters. The NFN symbol will consist of Nasdaq's 5-character trading symbol and the ending characters "NX".			
January 20, 2016	•	NextShares Exchange Traded Managed Fund references to			
		st, Nasdaq added two Deletion Reason codes for Instrument and Instrument Reorganizations (R).			
		entation List, Nasdaq also added a Document Type of eorganization".			
March 7, 2016	"Statement of Reorganization". Nasdaq added Investor Type fields to NFN Daily List and NFN Directory file Field is intended to help NFN pricing agents to identify which instruments fall under the SEC Money Market Reform Act reporting requirements.				
February 6, 2017	As of March 6, 2 Registration field	017, Nasdaq will add the following values to Instrument d:			
	Code	Value			
	С	U.S. Commodity Futures Trading Commission (CTFC)			

X SEC Registration Exer		SEC Registration Exemption
	Ν	Not Registered with U.S. Regulatory Agency

As of May 15, 2017, Nasdaq will add the following values to Instrument Code field:

		N 1		
	Code	Value		
	Υ 7	Interval Fund		
Amil 25, 2017		Business Development Company (BDC)		
April 25, 2017		For NFN Documentation List, Nasdaq added Document Type Private Placement Memorandum.		
November 20, 2017		0, 2017, Nasdaq will add a new field Instrument Class. the share class for each instrument.		
January 29, 2018	Root Symbol is an	As of January 29, 2018, Nasdaq will release a new Root Symbol field. The Root Symbol is an identification for a fund that encompasses all share classes within the fund.		
March 26, 2018	As of March 26, 2 Registration field:	018, Nasdaq will add the following values to Instrument		
	Code	Value		
	0	Other		
		he following to the existing Instrument Type field:		
	Code	Value		
	Code CT	Value Collective Investment Trust		
	Code CT MA	Value Collective Investment Trust Managed Accounts		
	Code CT MA SA	Value Collective Investment Trust Managed Accounts Separate Accounts		
	CodeCTMASAHFAs of March 26, 2	Value Collective Investment Trust Managed Accounts Separate Accounts Hedge Fund 018 Nasdaq will add the following to the existing		
	Code CT MA SA HF	Value Collective Investment Trust Managed Accounts Separate Accounts Hedge Fund 018 Nasdaq will add the following to the existing		
	CodeCTMASAHFAs of March 26, 2	Value Collective Investment Trust Managed Accounts Separate Accounts Hedge Fund 018 Nasdaq will add the following to the existing		
	CodeCTMASAHFAs of March 26, 2Instrument Type for the second	Value Collective Investment Trust Managed Accounts Separate Accounts Hedge Fund 018 Nasdaq will add the following to the existing iield: Value Collective Investment Trust		
	CodeCTMASAHFAs of March 26, 2Instrument Type fCode12	Value Collective Investment Trust Managed Accounts Separate Accounts Hedge Fund 018 Nasdaq will add the following to the existing field: Value Collective Investment Trust Separately Managed Accounts (SMA)		
	CodeCTMASAHFAs of March 26, 2Instrument Type 1Code123	Value Collective Investment Trust Managed Accounts Separate Accounts Hedge Fund 018 Nasdaq will add the following to the existing field: Collective Investment Trust Separately Managed Accounts (SMA) Unified Managed Accounts (UMA)		
	CodeCTMASAHFAs of March 26, 2Instrument Type for the second	Value Collective Investment Trust Managed Accounts Separate Accounts Hedge Fund 018 Nasdaq will add the following to the existing field: Value Collective Investment Trust Separately Managed Accounts (SMA) Unified Managed Accounts (UMA) Separate Accounts		
June 6, 2018	CodeCTMASAHFAs of March 26, 2Instrument Type forCode1234Integration of rebNasdaq Fund Net	Value Collective Investment Trust Managed Accounts Separate Accounts Hedge Fund 018 Nasdaq will add the following to the existing field: Collective Investment Trust Separately Managed Accounts (SMA) Unified Managed Accounts (UMA) Separate Accounts randing of Mutual Fund Quotation Service (MFQS) to work (NFN). 2018, Document name change, removing MFQS from all		

	Updated the URL Address statements than https://www.nasdaqMFQS.com).			
	As of August 20, 2018, new Instrumen	t Code added to Money Market Fund		
	Instrument Type: Type Code	Value		
	DD 5	Demand Deposit Account		
June 29, 2018	Added a symbol call option for the NFI list. Customers now have the option to symbol with a date.	N Daily List and NFN Advanced Daily pull these files by symbol, and		
September 6, 2018	Updated end point calls to reflect the Added the following fields to NFN Dail			
September 0, 2010	New fields added to NFN Daily List	New fields added to		
	Vehicle Legal Structure - Current	Vehicle Legal Structure		
	Vehicle Legal Structure - New	Instrument Performance		
	Instrument Performance - Current	Rebalance Frequency		
	Instrument Performance - New	GIPS Compliant		
	Rebalance Frequency - Current	Insured		
	Rebalance Frequency - New	Insured Amount		
	Number of Accounts			
	Number of Accounts Date			
	Assets Under Management			
	Assets Under Management Date			
	GIPS Compliant			
	Insured			
	Insured Amount			
January 10, 2019 March 15, 2019	Added Issuer Name field to Document Added three new document types to t of Total Net Assets, Summary Plan Des Added Issuer Directory specification.	he Document Posting Service: Proof		
September 9, 2019	Added Model Portfolio field to NFN Da	ily List, Symbol Directory.		
	Added Total Assets Under Management Date field to Issuer Directory.			
	Added Creation Date field to Document Posting Service.			
	Removed Assets Under Management and Assets Under Management Date from NFN Daily List, Symbol Directory.			
October 31, 2019	Removed codes from all Root Fields w	ith dropdown values.		
	Removed Headquarters field from Roc	t		

	Old field names	New field names
	Root Name	Product Name
	Web Presence URL	Product Website
	Asset Focus	Asset Category
	Asset Size Market Cap	Investment Type and Style
	Equity Single Sector	Sector
	Factor Weighting Method	Weighting Method
	Fixed Income Valuation Credit	Credit Quality
	Fixed Income Valuation Maturity Periods	Maturity Range
	Industry Alignment	Industry
	Management Style	Portfolio Management Styl
	Leverage Amount	Leverage Amount Limits
	MPT Stats Benchmark 1 Issuer	Issuer Benchmark Index 1
	MPT Stats Benchmark 1 Nasdaq	Nasdaq Benchmark Index 1
	MPT Stats Benchmark 2 Issuer	Issuer Benchmark Index 2
	MPT Stats Benchmark 2 Nasdaq	Nasdaq Benchmark Index 2
	Portfolio Stratification	Portfolio Allocation

January 15, 2021

As of January 25, 2021, Nasdaq will update the Instrument Code values for codes under the mutual funds and structured products below:

Code	Code Value	
Z	Tender Offer Fund	
R	Structured Product – Index: Autocall	
т	Structured Product – Index: Buffer/Barrier Enhanced Upside	
U	Structured Product – Index: Principal Protected	
W	Structured Product – Rates	

Added the following to Portfolio Top Holdings:

- Security Name
- Asset Category
- Issuer Category

Expanded the percent column in Portfolio Top Holdings to 28 characters As of May 5th, 2021, Nasdaq will update the Symbol field in the Portfolio Top Holdings table in the root report to the following:

Old Field Name	New Field Name
Symbol	Security Ticker

Expanding the Security Ticker (PKA Symbol) field to 30 characters

March 8, 2021

December 13, 2021	As of March 7, 2022, Nasdaq will add the following values to Instrument Registration field:			
	Code	Value		
	U	UCITS		
July 26, 2022	As of September	26, 2022, Nasdaq will update the Instrument Code values		
	for codes Structured Product instrument type below:			
	Code	Value		
	R	Growth		
	Т	Digital		
	U	Growth and Income		
	S	Income		
	Auto CaIssuer CMatureo	all d		
February 15, 2023	As of April 24, 20 Frequency field:	As of April 24, 2022, Nasdaq will add the following value to the Distribution Frequency field:		
	Code	Value		
	D	Distributes on Termination		
December 20, 2023 Instructions for AccessKey reset via REST API added.		AccessKey reset via REST API added.		