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# Industry Webinar - General CAT Update

January 15, 2020

# Agenda

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- Status of 2a/2b Release
- Connectivity – Private Line and AWS PrivateLink
- Update on Multi-Factor Authentication
- Industry Test Plan & Production Certification Requirements
- Industry Test Release 1.3 Walkthrough
- Redesign of [catnmsplan.com](http://catnmsplan.com)
- General Announcements & Reminders
- Q&A

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# Status of 2a/2b Release

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# Current Status of 2a/2b – File Integrity & Data Validation

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- **Completed Items:**

- ✓ October 15, 2019: Private Line Made available for network testing
- ✓ November 4, 2019: CAT Secure Reporting Gateway available for network testing
- ✓ November 18: Industry Test CAT Reporter Portal opened for the entry of CAT Reporting Relationships and entry of ATS Order Types (ATS IMs Only)
- ✓ December 16, 2019: Industry Test Machine-to-Machine and Manual File Entry

- **Ongoing:**

- Weekly Industry Test Checkpoint Calls (Every Tuesday at 4:15)

- **Upcoming:**

- January 27, 2020: AWS PrivateLink available
- February 24, 2020: Industry Test Release of CAT Reporter Portal expanded features (i.e. summaries, direct entry)
- March 23, 2020: Industry Test Release of CAT Reporter Portal
- April 6, 2020: Production Readiness Certification required for 2a (Equities)
- April 13, 2020: Production Environment Opens
- April 20, 2020: Production Go-Live of 2a
- May 4, 2020: Production Readiness Certification required for 2b (Options)
- May 18, 2020: Production Go-Live of 2b

# Industry Test Status – As of January 13, 2020 Statistics

Item	Statistic
Number of Reporting Relationships Entered	513 relationships from 283 firms
Number of ATS Relationships Entered	453 order types from 18 ATS firms
Number of Total Submitters	74
Number of IMIDs	210 across 149 Unique Firms Expected Unique Firms for 2a/2b - 1300
Number of Files Received	34,256 <ul style="list-style-type: none"> <li>Reporter Portal: 2,446</li> <li>Private Line: 31,810</li> </ul>
Number of Files Rejected	5,269
File Reject Rate	15.38%
Number of Records Processed in Ingestion Phase (Record level validations)	1,060,500,613
Number of Processed Records Rejected	96,737,721
Current Reject Rate Overall of Processed Data	9.12%

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# Connectivity – Private Line and AWS PrivateLink

# Summary of CAT Interfaces and Connectivity Methods

Connectivity Methods	Interface Methods	
	CAT File Transfer	CAT Reporter Portal
Private Line provided by a MNSP	Yes	Yes
AWS PrivateLink	Yes	Yes
CAT Secure Reporting Gateway	No	Yes

FINRA CAT Connectivity Supplement for Industry Members posted at <https://catnmsplan.com/registration/>

# CAT Data Submission and Feedback

CAT Data Submission and Feedback	CAT File Transfer	CAT Reporter Portal
Submission of CAT Events and Resubmission of Rejected Files/Records, Corrections and Deletions	✓	✓
File Status Retrieval	✓	✓
Reporting Statistics		✓
Interactive CAT Reportable Event Entry		✓
Error Feedback	✓	✓
Corrections Feedback		✓
Account Maintenance		✓
Establishment of Reporting Relationships and ATS Order Types		✓

# CAT Interface Methods – CAT File Transfer

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- **Automated, machine-to-machine interface utilizing the Secure File Transfer Protocol (“SFTP”) for file submissions, acknowledgements, rejections and corrections**
- **May be accessed via Private Line or AWS PrivateLink**
- **SFTP requirements include:**
  - SSH Key Exchange Algorithms
    - diffie-hellman-group-exchange-sha256
  - SSH Ciphers
    - aes128-ctr, aes192-ctr, aes256-ctr
  - SSH MAC Algorithms
    - hmac-sha256, hmac-sha256@ssh.com
- **Industry members should use the above supported SFTP/SSH encryption settings (see appendix for un-supported ciphers)**

# Connectivity Methods – Private Line

- **Private Lines provide connectivity to both CAT Interface Methods: CAT file Transfer (SFTP) and CAT Reporter Portal**
- **IMs and CRAs must engage one of the managed network service providers (MNSP) listed below to establish private line connectivity into the FINRA CAT system**
- **IMs and CRAs that prefer the use an extranet network service provider may continue to do so over a MNSP connection. Financial implications should be discussed with their MNSP of choice.**

CenturyLink	BT Radianz
<ul style="list-style-type: none"><li>• Century Link offers bandwidths ranging between 10 Mbps and 1 Gbps of throughput with redundant connectivity options</li><li>• Circuit delivery times can range widely and depend on the provider's network status at any locations</li><li>• IMs and CRAs may engage CenturyLink to begin the process of establishing private line connectivity by:<ul style="list-style-type: none"><li>○ Via existing sales contacts</li><li>○ Email at <a href="mailto:FINRA_CAT-Services@centurylink.com">FINRA_CAT-Services@centurylink.com</a></li><li>○ Phone at 888-870-8402</li></ul></li></ul>	<ul style="list-style-type: none"><li>• BT Radianz offers bandwidths ranging between 10 Mbps and 1 Gbps of throughput with redundant connectivity options.</li><li>• Existing BT Radianz customers may benefit from leveraging existing BT Radianz connections to achieve connectivity.</li><li>• IMs and CRAs may engage BT Radianz to begin the process of establishing private line connectivity by:<ul style="list-style-type: none"><li>○ Via existing sales contacts</li><li>○ Email at <a href="mailto:FINRACAT@bt.com">FINRACAT@bt.com</a></li><li>○ Phone at Sergio Angeloni – (646) 236-6183 or Timothy Chapman – (630) 923-2163</li></ul></li></ul>

# MNSP Onboarding Progress

▶ **FINRA CAT Help Desk completed a call-out campaign to IMs in December**

- 111 IMs planned on using private lines that were not currently under contract with an MNSP.
- MNSP efforts were refocused on the 111 IMs in an effort to facilitate their connections.

▶ **MNSP Providers establishing 3<sup>rd</sup> Party provider contracts**

- BT Radianz – contract available
- Century Link – not supported

**57** Business Days remaining until Production Readiness Certification (4/6/20)

Provider	# of IMs Under Contract	Average Setup Duration
Century Link	25	20 -50 days
BT Radianz	45	
<b>Totals</b>	<b>70</b>	

# Connectivity Methods – AWS PrivateLink

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- **IMs and CRAs with existing operations and data processing presence in the AWS cloud (VPC) may establish a cloud-to-cloud connection to CAT using the AWS PrivateLink service for an associated AWS fee**
- **An AWS PrivateLink connection enables communication from an Industry Member’s AWS VPC to the FINRA CAT VPC without traversing the public Internet**
- **IMs and CRAs interested in AWS PrivateLink should contact the FINRA CAT Help Desk**
  - Establishing AWS PrivateLink connectivity from an Industry Member’s and CRA’s VPC in the US-East-1 region to the FINRA CAT VPC can be accomplished by executing an AWS CloudFormation template
  - Industry Members and CRAs will need to provide their AWS account numbers to FINRA CAT in order to facilitate PrivateLink access
  - PrivateLink will be supported in the Industry Test environment starting on January 27
  - FINRA CAT will facilitate a call focused on AWS PrivateLink based on interest

Client Implementation Guide is found in Section 5 of the Connectivity Supplement for Industry Members posted at: <https://catnmsplan.com/registration/>

More information on AWS PrivateLink can be found at: <https://aws.amazon.com/privatelink/>

More information on the AWS Cloud Formation service can be found at: <https://aws.amazon.com/cloudformation>

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# Update on Multi-Factor Authentication

# Accepted MFA Devices

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- FINRA CAT systems require multi-factor authentication for human user accounts, provided by Duo. MFA is not applicable to machine-to-machine accounts.
- CAT users must enroll a **cell phone, tablet, or a U2F security key** for authentication.
- **Security Key Information:**
  - FINRA CAT will begin supporting MFA by U2F security keys (e.g., Yubikeys or Feitian keys) beginning March 2, 2020.
  - Organizations may purchase and self-register security keys, once they have determined they are compatible with FINRA CAT.
  - Because security key compatibility is dependent on the end-user's operating system, browser, and configuration, FINRA CAT recommends that organizations perform adequate testing to ensure the device they intend to use is compatible with Duo MFA for FINRA CAT.
  - FINRA CAT does not endorse a specific security key vendor or model.

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# Production Readiness Testing, Certification & Industry Test Plan

# Overview of Industry Test Plan

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## Data Integrity Validations

- All firms test independently
- Testing done in Test Environment – hard cutover to Prod at Go-live

## Intrafirm Linkage

- All firms test independently
- Testing done in Prod Environment with a Compliance Go-live date

## Interfirm, Exchange and TRF Linkage

- Coordinated Testing Required
- Testing done in Prod Environment with a Compliance Go-live date

# Overview of Industry Test Plan – Linkage

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- FINRA CAT will deploy applicable Linkage functionality in Production at an earlier date
  - Full feedback will be provided on a daily basis
  - Industry Members will **NOT** be required to dually submit to Production and Test
- Compliance (error rates, corrections) will not be required until a defined Compliance Go-Live date
- The CAT Test Environment will still be available for testing:
  - Functionality will be the same as the Production Environment.
  - Validations and feedback process will mirror the Production Environment, and is subject to initial phasing.
  - Feedback will be provided on the same timeframe as production feedback.
  - There are no volume limitations and Industry Members may submit full production loads to the Test Environment.
  - Test symbols will be accepted in the Test Environment (but not in the Production Environment).
  - The Test Environment would be available Monday through Saturday, 24 hours a day.
  - TRF and Exchange data would be available daily, including test symbols.

# Plan Details

Release	Original Schedule	Updated Schedule
2a/2b – Release 1 (File Submission & Data Integrity)	Industry Test: December 16, 2019  Production: April 20, 2020 (2a), May 18, 2020 (2b)	No Change
2a/2b – Release 2 (Intrafirm Linkage)	Industry Test: April 20, 2020  Production: July 27, 2020 (2a), August 24, 2020 (2b)	Industry Test: April 20, 2020  Production: May 4, 2020  Compliance Go-Live: July 27, 2020 (2a), August 24, 2020 (2b)

# Plan Details – continued

Release	Original Schedule	Updated Schedule
2a/2b – Release 3 (Interfirm Linkage)	<p>Industry Test: July 27, 2020</p> <p>Production: October 26, 2020 (2a), December 30, 2020 (2b)</p>	<p>Industry Test: July 27, 2020</p> <p>Production: August 10, 2020</p> <p>Compliance Go-Live: October 26, 2020 (2a), December 30, 2020 (2b)</p>
2a/2b – Release 4 (TRF/Exchange Linkage)	<p>Industry Test: September 28, 2020</p> <p>Production: October 26, 2020 (2a), December 30, 2020 (2b)</p>	<p>Industry Test: September 9, 2020</p> <p>Production: September 28, 2020</p> <p>Compliance Go-Live: October 26, 2020 (2a), December 30, 2020 (2b)</p>

# Production Readiness Testing – Self Reporters

## Step 1:

Successfully connect to SFTP and/or login to the CAT Reporter Portal Test Environment



## Step 2:

Successfully submit at least one data file and one metadata file to the Test Environment for each of its CAT Reporter IMIDs without error



## Step 3:

Successfully submit a single day of production data to the Test Environment with an error rate of less than 10% (must include all IMIDs with reportable activity on the chosen day)



## Step 4:

Record the CAT Processing Date on which the single day of production data was submitted to the Test Environment

# Production Readiness Testing – CAT Reporting Agents

## Step 1:

Successfully connect to SFTP and/or login to the CAT Reporter Portal Test Environment



## Step 2:

Verify the CAT Reporting Agent Relationship in the Test Environment to ensure the CRA can transmit the data to CAT successfully



## Step 3:

Successfully submit at least one data file and one metadata file to the Test Environment for each CAT Reporter IMID for which it plans to report without error



## Step 4:

Successfully submit a single day of production data to the Test Environment with an error rate of less than 10% (must include all IMIDs with reportable activity on the chosen day)



## Step 5:

Record the CAT Processing Date on which the single day of production data was submitted to the Test Environment

# Production Readiness Testing – Industry Members using a CAT Reporting Agent

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## Step 1:

Firm and CRA successfully connect to SFTP and/or login to the CAT Reporter Portal Test Environment



## Step 2:

CAT Reporter defines one or more CAT Reporting Agent Relationships in the Test Environment



## Step 3:

Record the CAT Processing Date(s) on which each CRA has successfully submitted a single day of production to the Test Environment on the Industry Member's behalf (Each CRA reporting on behalf of the CAT Reporter must complete a production readiness test but do not have to do so on the same production day)

# Certification of Production Readiness Testing

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- Once CAT Reporters have completed **all** onboarding steps, including the successful completion of the Production Readiness Testing, each IM and CRA must contact the FINRA CAT Helpdesk (888-696-3348 or [help@finracat.com](mailto:help@finracat.com)).
- The FINRA CAT Helpdesk will require the Processing Date(s) on which the testing occurred.
- Upon verification of the Production Readiness Testing and all other Onboarding Steps by FINRA CAT, CAT Reporters will be granted access to the CAT Production Environment, and a notification confirming access will be sent.

FINRA CAT Onboarding Guide is posted at <https://catnmsplan.com/registration/>

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# Release 1.3 Walkthrough

# Industry Member 2a/2b – Release 1 (File & Data Integrity) Release Rollout

## Currently Live in Industry Test

11/18/2019

### Industry Test Release 1.1

- CAT Reporter Portal: ATS Order Types
- CAT Reporter Portal: CAT Reporting Relationships
- Multi-Factor Authentication Enabled
- Publication of IMID & Conflict List to [catnmsplan.com](http://catnmsplan.com)
- Publication of Issue/Option Symbol Reference Lists to [catnmsplan.com](http://catnmsplan.com)

12/16/2019

### Industry Test Release 1.2

- Industry Test Open for Machine-to-Machine File & Data Integrity Validations & Feedback
- CAT Reporter Portal: Basic File Statistics
- CAT Reporter Portal: Manual File Upload

## Upcoming

2/24/2020

### Industry Test Release 1.3

- CAT Reporter Portal: File Submission feedback
- CAT Reporter Portal: Reporting Statistics (i.e. number of records received, accepted, rejected and feedback summaries)
- CAT Reporter Portal: Error Rates
- CAT Reporter Portal: Direct data entry & corrections
- CAT Reporter Portal: Bulk Repair of applicable Syntax/Semantic Errors

03/23/2020

### Industry Test Release 1.4

- Announcements
- System Status

4/20/2020 – 2a Go-Live  
5/18/2020 – 2b Go-Live

- 2a Go-Live – Industry Member 2a Reporting Required on April 20
- 2b Go-Live – Industry Member 2b Reporting Required on May 18

# Reporter Portal Menu

## \*New and enhanced screens

\*Screens already available in Industry Test

Navigation Icon	Pages
Reporting Feedback	<ul style="list-style-type: none"><li>• <b>Reporting Summary (<i>landing page</i>)</b></li><li>• <b>File Status</b></li><li>• <b>Event Type Counts</b></li></ul>
<b>Error Corrections</b>	<ul style="list-style-type: none"><li>• <b>Error Summary</b></li><li>• <b>Error Search</b></li><li>• <b>ROE Repair</b></li><li>• <b>Group Repair</b></li></ul>
Report to CAT	<ul style="list-style-type: none"><li>• File Upload</li><li>• Download Feedback</li><li>• <b>Create Order Events</b></li><li>• <b>Pending Submissions</b></li></ul>
Reporting Relationships	
ATS Order Types	

- Reporting Feedback
- Error Corrections
- Report to CAT
- Reporting Relationships
- ATS Order Types

## Reporting Feedback

### Reporting Summary

### File Status

Processing Date  Trade Date

Product Type

IMID

07/05/2019

All

All

APPLY

RESET

Export

Adjusted Error Rate

**0.4482%**

File Submissions <a href="#">Show Details</a>	Valid Files Submitted	Data File Received	Data File Accepted	Data File Rejected	Metadata Files Received	Metadata Files Rejected	Invalid Files
	26	20	18	2	6	1	2

Event Submissions <a href="#">Show Details</a>	Processed	Accepted	Accepted Warnings	Accepted Late	Accepted Corrections	Rejected	Repairable Rejections	Repaired	Initial Error Rate	Adjusted Error Rate
	690,271	659,287	0	223	43	30,984	<b>30,946</b>	28,113	4.5210%	0.4482%



## Reporting Feedback

### Reporting Summary

### File Status

Processing Date
  Trade Date
 Product Type: 
 IMID:

[Export](#)

Adjusted Error Rate **0.4482%**

File Submissions	Valid Files Submitted	Data File Received	Data File Accepted	Data File Rejected	Metadata Files Received	Metadata Files Rejected	Invalid Files
<a href="#">Show Details</a>	26	20	18	2	6	1	2

Event Submissions		Processed	Accepted	Accepted Warnings	Accepted Late	Accepted Corrections	Rejected	Repairable Rejections	Repaired	Initial Error Rate	Adjusted Error Rate
<a href="#">Show Details</a>		690,271	659,287	0	223	42	30,984	<b>30,946</b>	28,113	4.5210%	0.4482%
IMID	Submitter ID										
ABCD	1234	12,232	10,029	0	20	12	2,203	2,166	2,101	18.1736%	0.9974%
AAAA	222	2,121	2,100	0	2	6	21	20	2	1.0844%	0.9901%
BBBB	222	388	388	0	4	1	0	0	0	1.0309%	1.0309%
WXYZ	6789	675,530	646,770	0	197	23	28,760	28,760	26,010	4.2866%	0.4363%



## Reporting Feedback

Reporting Summary

File Status

Processing Date

12/9/2019



IMID

All



APPLY

RESET

Export

Processing Date	Submitter ID	Reporter IMID	User ID	Uploaded Filename	Paired Metadata Filename
12/9/19	1234	ABCD	catdftp361	1234_ABCD_20191125_VSUAT11MEOTJSON_OrderEvents_000001.json.bz2	1234_ABCD_20191125_VSUAT11MEOTJSON_OrderEvents_000001.meta.c
12/9/19	1234	ABCD	catdftp361	1234_ABCD_20191205_SBCSVUAT3_OrderEvents_000003.csv.bz2	1234_ABCD_20191205_SBCSVUAT3_OrderEvents_000003.meta.c
12/9/19	1234	ABCD	catdftp361	1234_ABCD_20191205_SBCSVUAT2_OrderEvents_000002.csv.bz2	1234_ABCD_20191205_SBCSVUAT2_OrderEvents_000002.meta.c
12/9/19	1234	ABCD	catdftp361	1234_ABCD_20191205_SBCSVUAT4_OrderEvents_000004.csv.bz2	1234_ABCD_20191205_SBCSVUAT4_OrderEvents_000004.meta.c
12/9/19	1234	ABCD	catdftp361	1234_ABCD_20191205_SBJSONUAT5_OrderEvents_000005.json.bz2	1234_ABCD_20191205_SBJSONUAT5_OrderEvents_000005.meta.c
12/9/19	1234	ABCD	catdftp361	1234_ABCD_20191125_VSUAT10MEOT_OrderEvents_000001.csv.bz2	1234_ABCD_20191125_VSUAT10MEOT_OrderEvents_000001.meta.c
12/9/19	1234	ABCD	catdftp361	1234_ABCD_20191205_SBCSVUAT1_OrderEvents_000001.csv.bz2	1234_ABCD_20191205_SBCSVUAT1_OrderEvents_000001.meta.c
12/9/19			catdftp361	1234_ABCD_20191125_VSUAT8MEOT_OrderEvents_000001.meta	
12/9/19			catdftp361	1234_ABCD_20191125_VSUAT8MEOT_OrderEvents_000001.CSV.bz2	



## Reporting Feedback

Reporting Summary | **File Status**

Processing Date

IMID

12/9/2019



All



APPLY

RESET

Export

Upload		Acknowledgement		Integrity		Ingestion			
Timestamp	Method	Timestamp	File Status	Timestamp	File Status	Timestamp	Processed	Accepted	Rejected
12/9/2019 2:29:35 PM	SFTP	12/9/2019 2:29:43 PM	Success	12/9/2019 2:31:42 PM	Success	12/9/2019 2:32:07 PM	10	1	9
12/9/2019 3:56:15 PM	SFTP	12/9/2019 3:56:28 PM	Success	12/9/2019 3:56:32 PM	Success	12/9/2019 3:56:57 PM	22	0	22
12/9/2019 3:21:52 PM	SFTP	12/9/2019 3:21:59 PM	Success	12/9/2019 3:22:10 PM	Success	12/9/2019 3:22:36 PM	19	0	19
12/9/2019 4:55:48 PM	SFTP	12/9/2019 4:55:54 PM	Success	12/9/2019 4:55:58 PM	Success	12/9/2019 4:56:22 PM	22	3	19
12/9/2019 9:09:33 PM	SFTP	12/9/2019 9:09:47 PM	Success	12/9/2019 9:09:50 PM	Success	12/9/2019 9:10:26 PM	22	0	22
12/9/2019 11:59:43 AM	SFTP	12/9/2019 11:59:56 AM	Success	12/9/2019 12:00:07 PM	Success	12/9/2019 12:00:32 PM	10	1	9
12/9/2019 11:30:07 AM	SFTP	12/9/2019 11:30:20 AM	Success	12/9/2019 11:30:26 AM	Success	12/9/2019 11:30:51 AM	19	0	19
12/9/2019 10:11:05 AM	SFTP	12/9/2019 10:11:19 AM	Failure						
12/9/2019 10:11:05 AM	SFTP	12/9/2019 10:11:19 AM	Failure						

- Reporting Feedback
- Error Corrections
- Report to CAT
- Reporting Relationships
- ATS Order Types

## Error Corrections

**Error Summary** | Error Search

Processing Date     Trade Date   
 Product Type    IMID

07/05/2019   
 All    All   
 APPLY   
 RESET

### Error Summary (10)

Export

Date	Reporter IMID	Submitter ID	Error Type	Repaired Status	Repair Type	Error Code	Error Reason	Group Repair Eligible	Error Count
07/05/2019	ABCD	1234	Rejection	U		2015	Missing or invalid capacity	Y	2,000
07/05/2019	ABCD	1234	Rejection	U		2015	Missing or invalid capacity		808
07/05/2019	ABCD	1234	Warning	U		399	Full Duplicate		4
07/05/2019	ABCD	5678	Linkage	R	COR	8007	Destination did not match	Y	854
07/05/2019	ABCD	5678	Rejection	R	DEL	2018	Missing or invalid deptType	Y	1,890
07/05/2019	ABCD	9012	OOS	P		3601	Out of Sequence Event		65
07/05/2019	ABCD	9012	Rejection	R	RPR	2018	Missing or invalid deptType	Y	1
07/05/2019	ABCD	9012	Rejection	U		2015	Missing or invalid capacity	Y	329
07/05/2019	ABCD	1234	Rejection	U		2015	Missing or invalid capacity		2,000
07/05/2019	ABCD	1234	Warning	U		399	Full Duplicate		808



## Error Corrections

Error Summary | **Error Search**

Processing Date
  Trade Date
 Product Type: 
 IMID:

Total Errors (45,000)

[Export](#)

ErrorROEID	Error Code	Error Reason	Repair Status	Error Type	FirmROEID	CAT Reporter IMID	Event Type	Symbol/ Option II
<a href="#">5012091438442</a>	2013	Missing or Invalid cancelFlag	U	Rejection	A	FRMA	MENO	XYZ
<a href="#">5012091387112</a>	2018	Missing or Invalid deptType	U	Rejection	B	FRMA	MEOJ	XYZ
<a href="#">5012091438443</a>	2013	Missing or Invalid cancelFlag	U	Rejection	C	FRMA	MEOT	RAX
<a href="#">5012091438444</a>	2024	Missing or Invalid electronicDupFlag	U	Rejection	D	FRMA	MENO	EDC
<a href="#">5012091438456</a>	2020	Missing or Invalid destinationType	U	Rejection	ROE1			
<a href="#">5012091438446</a>		MULTIPLE ERRORS	U	Rejection	F	FRMA	MENOS	XYZ
<a href="#">5012091438447</a>	2054	Missing or Invalid sideDetailsInd	U	Rejection	G	FRMA	MEOR	RAX
<a href="#">5012091438401</a>	2024	Missing or Invalid electronicDupFlag	U	Rejection	H	FRMA	MECOM	FDS
<a href="#">5012091438448</a>	2003	Missing or Invalid affiliateFlag	U	Rejection	I	FRMA	MENOS	POJ
<a href="#">5012091438449</a>	2018	Missing or Invalid deptType	U	Rejection	J	FRMA	MEOR	POJ
<a href="#">5012091438459</a>	2015	Missing or Invalid capacity	U	Rejection	ROE2			
<a href="#">5012091443212</a>		MULTIPLE ERRORS	U	Rejection	L	FRMA	MEOC	XFT
<a href="#">5012091443213</a>	2003	Missing or Invalid affiliateFlag	U	Rejection	ROE3			
<a href="#">5012111443577</a>	2015	Missing or Invalid capacity	U	Rejection	N	FRMA	MEOT	XFT



Reporting Feedback



Error Corrections



Report to CAT



Reporting Relationships



ATS Order Types

## Error Corrections

### Group Repair

Error Code	Error Reason	Error Count	Corrected Value*	
2018	Missing or Invalid deptType	<a href="#">75</a>	<input type="text" value="W"/>	<input type="button" value="REPAIR (75)"/> <input type="button" value="CANCEL"/>

Please enter correct value for deptType



## Report to CAT

File Upload | Download Feedback | **Create Order Events** | Pending Submissions (45)

1. actionType: NEW - New Record  
 2. errorROEID:   
 3. firmROEID:   
 4. type: MENO  
 5. CATReporterIMID: ABCD  
 CREATE

### Requirement Reference

Guidance for creating an Order Event is available in the [Technical Specifications](#)

6. orderKeyDate: 12/03/2019 T 123456 - 000501  
 7. orderID: OrderID\_11234567823101  
 8. symbol: GOOG  
 9. eventTimestamp: 14/14/20237439 T  -  Error Message  
 10. manualFlag:  True  False  
 11. electronicDupFlag:  True  False  
 12. electronicTimestamp: MM/DD/YYYY T  -   
 13. manualOrderKeyDate: MM/DD/YYYY T  -   
 14. manualOrderID:   
 15. deptType:   
 16. side:   
 17. price:

SUBMIT

- Reporting Feedback
- Error Corrections
- Report to CAT
- Reporting Relationships
- ATS Order Types

## Report to CAT

- File Upload
- Download Feedback
- Create Order Events
- Pending Submissions (45)

**i** Creating and repairing CAT events via the Reporter Portal is a two-step process. **First**, users must create new order events and/or repair errors. **Second**, users must submit the staged events to CAT for processing. Users are able to download and submit data for any selection of Submission Type and IMID. Once submitted, staged events are no longer available for Download.

### Pending submissions (45)

[Export](#)

<input type="checkbox"/>	Action Type	Error ROE ID	Firm ROE ID	CAT Reporter IMID	Event Key ID	Event Timestamp	Event Type	Symbol/Option ID	Quantity	Entered/Repair Timestamp	Entered/Repair By
<input type="checkbox"/>	<a href="#">RPR</a>	123456789	20191101_M12360	ASDF1	076292	20191101T153035.334656	MENO	XYZ	89	11/5/2019 2:29:35 PM	ARE562: James
<input type="checkbox"/>	<a href="#">NEW</a>		20191031_SW4501	WERT3	057457	20191031T153035.334656	MEOT	ABC	10	10/31/2019 4:19:31 PM	TRES11: James
<input type="checkbox"/>	<a href="#">COR</a>	452222	20191030_OP890	RERE	05Ys89	20191030T153035.334656	MENO	JHK	1	10/30/2019 1:54:15 PM	Y12T1: Micheal
<input type="checkbox"/>	<a href="#">DEL</a>	123456789	20191101_M12360	ASDF1							
<input type="checkbox"/>	<a href="#">RPR</a>	123456789	20191101_M12360	ASDF1	076292	20191101T153035.334656	MENO	XYZ	89	11/5/2019 12:24:15 PM	ARE562: James
<input type="checkbox"/>	<a href="#">NEW</a>		20191031_SW4501	WERT3	057457	20191031T153035.334656	MEOT	ABC	10	10/31/2019 1:44:42 PM	TRES11: James
<input type="checkbox"/>	<a href="#">COR</a>	452222	20191030_OP890	RERE	05Ys89	20191030T153035.334656	MENO	JHK	1	10/30/2019 2:19:25 PM	Y12T1: Micheal
<input type="checkbox"/>	<a href="#">DEL</a>	123456789	20191101_M12360	ASDF1							
<input type="checkbox"/>	<a href="#">RPR</a>	123456789	20191101_M12360	ASDF1	076292	20191101T153035.334656	MENO	XYZ	89	11/5/2019 12:24:15 PM	ARE562: James
<input type="checkbox"/>	<a href="#">NEW</a>		20191031_SW4501	WERT3	057457	20191031T153035.334656	MEOT	ABC	10	10/31/2019 3:19:05 PM	TRES11: James
<input type="checkbox"/>	<a href="#">COR</a>	452222	20191030_OP890	RERE	05Ys89	20191030T153035.334656	MENO	JHK	1	10/30/2019 1:31:55 PM	Y12T1: Micheal
<input type="checkbox"/>	<a href="#">DEL</a>	123456789	20191101_M12360	ASDF1							
<input type="checkbox"/>	<a href="#">RPR</a>	123456789	20191101_M12360	ASDF1	076292	20191101T153035.334656	MENO	XYZ	89	11/5/2019	ARE562: James Gei

0 file selected      Download    Delete



# Report to CAT

- File Upload
- Download Feedback
- Create Order Events
- Pending Submissions (45)**

**i** Creating and repairing CAT events via the Reporter Portal is a two-step process. **First**, users must create new order events and/or repair errors. **Second**, users must submit the staged events to CAT for processing. Users are able to download and submit data for any selection of Submission Type and IMID. Once submitted, staged events are no longer available for Download.

## Pending submissions (45)

Export

<input type="checkbox"/>	Type	Error ROE ID	Firm ROE ID	CAT Report IMID	Symbol/Option ID	Quantity	Entered/Repair Timestamp	Entered/Repair By
<input type="checkbox"/>	RPR	123456789	20191101_M12360	ASDF1	XYZ	89	11/5/2019	ARE562: James Gei
<input type="checkbox"/>	NEW		20191031_SW4501	WERT3	ABC	10	10/31/2019	TRES11: James Kiro
<input checked="" type="checkbox"/>	COR	452222	20191030_OP890	RERE	JHK	1	10/30/2019	Y12T1: Micheal Reop
<input checked="" type="checkbox"/>	DEL	123456789	20191101_M12360	ASDF1	XYZ	89	11/5/2019	ARE562: James Gei
<input checked="" type="checkbox"/>	RPR	123456789	20191101_M12360	ASDF1	XYZ	89	11/5/2019	ARE562: James Gei
<input checked="" type="checkbox"/>	NEW		20191031_SW4501	WERT3	ABC	10	10/31/2019	TRES11: James Kiro
<input type="checkbox"/>	COR	452222	20191030_OP890	RERE	JHK	1	10/30/2019	Y12T1: Micheal Reop
<input type="checkbox"/>	DEL	123456789	20191101_M12360	ASDF1	JHK	1	10/30/2019	Y12T1: Micheal Reop
<input type="checkbox"/>	RPR	123456789	20191101_M12360	ASDF1	XYZ	89	11/5/2019	ARE562: James Gei
<input type="checkbox"/>	NEW		20191031_SW4501	WERT3	ABC	10	10/31/2019	TRES11: James Kiro
<input type="checkbox"/>	COR	452222	20191030_OP890	RERE	JHK	1	10/30/2019	Y12T1: Micheal Reop
<input type="checkbox"/>	DEL	123456789	20191101_M12360	ASDF1	JHK	1	10/30/2019	Y12T1: Micheal Reop

**Event Submission**

**⚠️ 1 record was not submitted. Reporting Agent must be authorized as a Submitter by the CAT Reporter to Submit. These record(s) remain in Pending Submissions.**

**✓ 3 records were successfully submitted.**

[CLOSE](#)

4 files selected

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CANCEL

SUBMIT

---

# Redesign of catnmsplan.com

# User Research—4 Methods

---

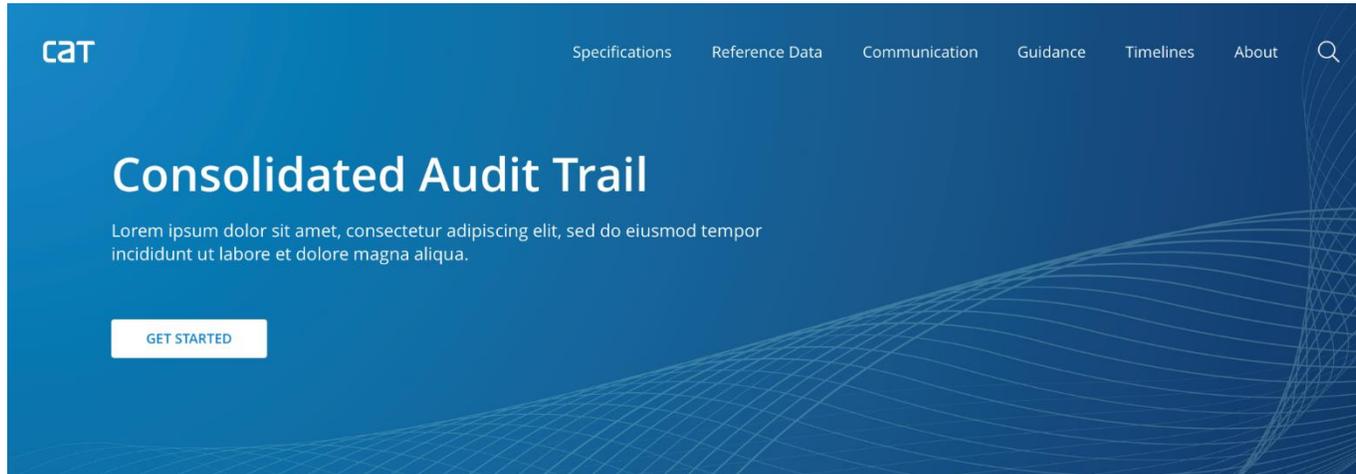
- Baseline User Survey
- Card Sort
- Usability Interviews
- Navigation Tree Test

# User Research—Key Findings

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- Poor information categories
- Difficult to find guidance and other key information
- Current information needs to be more prominent
- Add search functionality

# Demo



cat

Specifications Reference Data Communication Guidance Timelines About

## Consolidated Audit Trail

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

GET STARTED

## Latest Updates

### FAQ

B. Reporting Requirements | 10/29/19

**B43. Are verbal and manual quotes subject to the reporting requirements of Phases 2a, 2b or 2c?**

### FAQ

C. Definitions | 10/14/19

**C6. What is the definition of a "cabinet" order for purposes of the "orderType" field for Exchange-listed options in the CAT Reporting Technical Specifications for Industry Members?**

### CAT Alerts

CAT Industry Member Reporting Scenarios Version 2.0 | 05/13/2019

**CAT Alert 2019-03** [📄](#)

### Technical Specification

CAT Industry Member Reporting Scenarios Version 2.0 | new as of 11/01/19

**Industry Member Technical Specifications v3.0 DRAFT**



# How to Ask a Question during Today's Call

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- **For participants using computer audio:**
  - Click the “Raise Hand” button at the bottom of the participants window.
  - A visual prompt will indicate that your line has been unmuted.
- **For participants using phone audio:**
  - Enter \*9 on your phone keypad.
  - An audio prompt will indicate that your line has been unmuted.

# FINRA CAT Helpdesk

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Questions may be directed to the FINRA CAT Helpdesk at 888-696-3348 or [help@finracat.com](mailto:help@finracat.com)

# Appendix A — Unsupported Encryption Ciphers

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- FINRA CAT does **NOT** support the following OATS SFTP/SSH encryption ciphers

SSH key Exchange Algorithm	SSH Ciphers	MAC Algorithm
<ul style="list-style-type: none"><li>• diffie-hellman-group14-sha1</li></ul>	<ul style="list-style-type: none"><li>• aes128-cbc</li><li>• aes192-cbc</li><li>• aes256-cbc</li><li>• 3des-cbc</li><li>• blowfish-cbc</li></ul>	<ul style="list-style-type: none"><li>• hmac-sha1</li><li>• hmac-md5</li><li>• hmac-sha1-96</li><li>• hmac-md5-96</li></ul>