

MEMORANDUM

February 29, 2012

To: File No. S7-11-10

From: Rebekah Liu
Division of Trading and Markets

Re: Staff meeting with the Financial Information Forum

On February 29, 2012, staff from the Division of Trading and Markets (David Shillman, Associate Director; Gregg Berman, Senior Advisor to the Director; David Hsu, Assistant Director; Jennifer Colihan, Special Counsel; Rebekah Liu, Special Counsel; Leigh Duffy, Special Counsel; and Carl Tugberk, Special Counsel), staff from the Office of Compliance Inspections and Examinations (John Polise, Associate Director; Mark Donohue, Assistant Director), staff from the Division of Risk, Strategy and Financial Innovation (Amy Edwards, Assistant Director; Charles Dale, Financial Economist), and staff from the Office of Information Technology (Thomas Bayer, Chief Information Officer and Director, Office of Information Technology), participated in a meeting with the following representatives of the Financial Information Forum (“FIF”):

Tom Buckel, Broadridge
Jess Haberman, Fidessa
Tom Jordan, Jordan & Jordan
Manisha Kimmel, FIF
Michael Lurie, JP Morgan
Deborah Mittelman, UBS
Christy Oeth, Knight Capital
Arsalan Shahid, FIF
Philip Slocum, CBOE
Jim Toes, STA
John Zecca, Nasdaq OMX

The participants discussed the Commission’s proposed rule-making concerning the consolidated audit trail. In addition, the FIF representatives also distributed the attached handout.

OATS FOR NMS SURVEY RESULTS

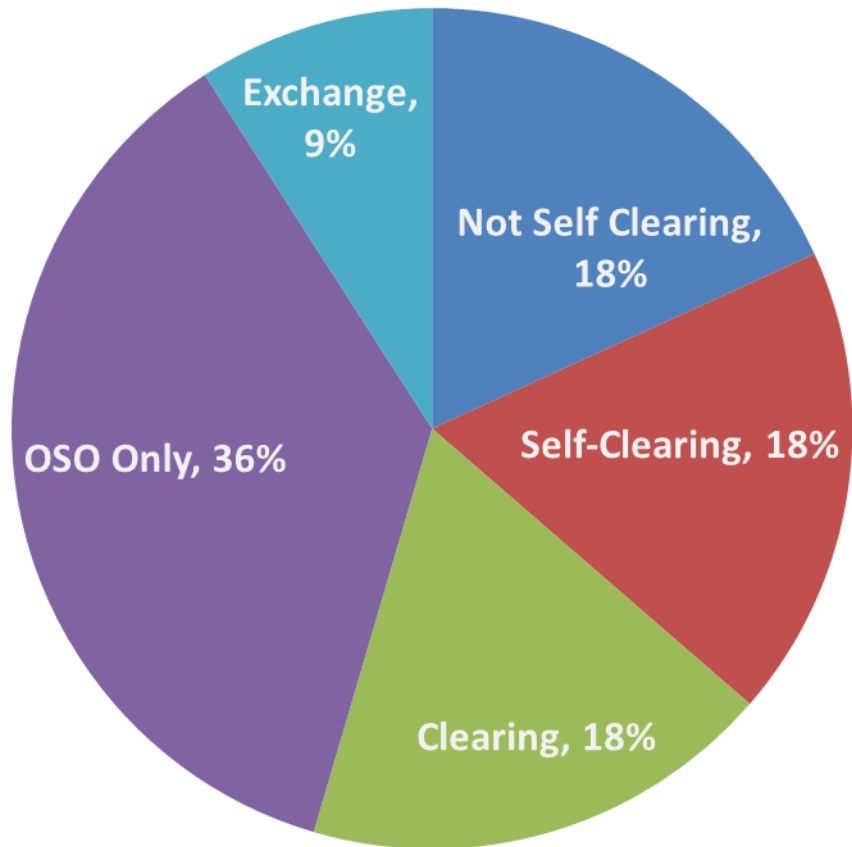
FIF OATS FOR NMS SURVEY

OBJECTIVE

- Through its FIF OATS for NMS WG, FIF has assisted its members in addressing implementation issues associated with the expansion of OATS to all NMS stocks through surveys, member portals, tracking documents and meetings aimed at information sharing and issue resolution.
- After the implementation of OATS for NMS, FIF conducted a survey to assess the costs associated with the implementation effort.
- The survey also aims at providing insight into implementation timing, resources and issues as we look to future regulatory initiatives like the proposed Consolidated Audit Trail.

FIF OATS FOR NMS SURVEY

BROAD INDUSTRY PARTICIPATION



- The 22 participants included a mix of broker-dealers, vendors providing OATS services (OSO – OATS Order Sending Organization) as well as exchanges
- Participants accounted for 1/3 of total OATS records submitted to FINRA

FIF OATS FOR NMS SURVEY

ASSESSING INDUSTRY COSTS

FIF developed a cost model in order to determine OATS for NMS Implementation costs following the methodology described below:

1. Surveyed firms as to how their implementation effort was divided based on functional activity (i.e., Business Analysis, Development, Testing, Other)
2. Surveyed firms as to the size of their OATS for NMS Project Team based on type of staff (Technology, Project Management, Compliance and Operations)
3. Established a relationship allocating each type of staff to functional activity
4. Applied staff time spent on functional activities to create total implementation man days. Applied \$1200/FTE to determine total spend
5. Scaled survey sample results based on average number of OATS records to obtain industry number.

FIF OATS FOR NMS SURVEY - INDUSTRY COST IMPLEMENTATION EFFORT BY FUNCTIONAL ACTIVITY

% of Man Days Spent on Functional Activity					
Firm Type	Business Analysis	Development	Testing	Other	Total
OSO	39%	27%	30%	4%	100%
Clearing	42%	32%	25%	1%	100%
Self-Clearing	32%	31%	21%	15%	100%
Not Self-Clearing	23%	51%	18%	8%	100%
Exchange	27%	27%	41%	4%	100%
Weighted Average	36%	33%	24%	8%	100%



- On average, over 1/3 of implementation effort is spent on business development
- Current regulatory estimates do not reflect these ratios

FIF OATS FOR NMS SURVEY - INDUSTRY COST

OATS FOR NMS PROJECT TEAM

Size of OATS for NMS Project Team

Firm Type	Technology	Project Management	Compliance	Operations	Total
OSO	24	13	7	9	53
Clearing	40	15	12	9	76
Self-Clearing	25	6	6	5	42
Not Self-Clearing	12	5	7	5	29
Exchange	2	1	2	2	7
Total	103	40	34	30	207
Individual Firm Average	4.7	1.8	1.5	1.4	9.4

- Project teams include staff with different areas of expertise
- The average firm had upwards of 9 people involved in implementing OATS for NMS

FIF OATS FOR NMS SURVEY – INDUSTRY COST ALLOCATION OF PROJECT TEAM TO FUNCTIONAL ACTIVITY

Allocation of Staff Time to Functional Activity

Functional Activity	Technology	Project Management	Operations	Compliance
Business Analysis	23%	43%	48%	68%
Development	53%	23%		
Testing	24%	20%	49%	16%
Other		14%	3%	16%
Total	100%	100%	100%	100%



- Based on FIF Member discussion, the time of different types of staff was allocated to the functional activities
- Operations staff time was almost equally divided between business and analysis and testing

Note: Percentages represent an average of FIF member estimates

FIF OATS FOR NMS SURVEY – INDUSTRY COST MAN DAYS SPENT ON EACH FUNCTIONAL ACTIVITY

OATS Implementation Effort in Man Days					
Firm Type	Business Analysis	Development	Testing	Other	Survey Total
OSO	1667	876	867	29	3,439
Clearing	2479	1667	988	7	5,141
Self-Clearing	1006	960	481	60	2,507
Not Self-Clearing	584	798	286	32	1,700
Exchange	185	74	171	5	434
Survey Total	5921	4375	2792	132	13,221
Industry Total = Survey Total *3, based on OSO records of survey participants versus total OSO records as stated by FINRA, Nov 22, 2011					39,662

FIF OATS FOR NMS SURVEY

TOTAL COST AND INDUSTRY COST

Firm Type	Total FTE Man Days				Grand Total
	Business Analysis	Development	Testing	Other	
OSO	\$2,000,492	\$1,051,130	\$1,040,466	\$34,560	\$4,126,647
Clearing	\$2,975,042	\$2,000,781	\$1,185,306	\$8,316	\$6,169,445
Self-Clearing	\$1,207,639	\$1,152,149	\$576,909	\$71,711	\$3,008,409
Not Self-Clearing	\$700,439	\$957,946	\$342,831	\$38,497	\$2,039,712
Exchange	\$221,550	\$88,436	\$205,261	\$5,414	\$520,661
Total (FIF Survey)					\$15,864,874
Industry Cost (3X)					\$48 million

Note: Cost derived by multiplying the sum with \$1,200 (cost per man day)

FIF OATS FOR NMS IN CONTEXT OF OTHER INDUSTRY PROJECTS

Industry Project	Initial Implementation Time	Actual Implementation Time	Projected Industry Cost	Cost per month
Regulation NMS	14 months	26 months	N/A	N/A
Options Symbology Initiative	32 months	38 months	\$372 million	\$10 million
Cost Basis (Phase 1)	13.5 months	13.5 months	\$305 million	\$22 million
Reg SHO	8.5 months	12 months	N/A	N/A
OATS for NMS	8 months	11 months	\$48 million	\$4 million

LESSONS LEARNED FOR FUTURE INITIATIVES

- Multiple changes increase cost.
- There is a cost to uncertainty. Firms end up making assumptions that lead to throw-away work.
- Testing needs to be taken seriously – not just functional testing but also testing for expected capacity requirements. Robust test environments are critical.
- Complexity of changes increases risk and complicates testing. Fewer changes per release is preferred.
- Future estimates of cost should consider the FIF cost model, most importantly the effort expended on business analysis and testing as part of the implementation effort.

APPENDIX: FIF OATS FOR NMS SURVEY

BASIS FOR MULTIPLE TO ACHIEVE INDUSTRY COST

Firm Type	# of OATS Records
OSO	78 Million
Clearing	131 Million
Self-Clearing	264 Million
Not Self-Clearing	71 Million
Exchange	14 Million
Grand Total (FIF Survey Firms)	~500 Million
FINRA Daily Volume *	1.5 Billion
Overall Industry Volume	3X FIF Survey Participants

* FINRA stated on their Nov 22, 2011 call that volumes had been steady at 1.5 billion

APPENDIX: FIF OATS FOR NMS SURVEY

TOTAL DAYS SPENT ON EACH FUNCTIONAL ACTIVITY

Number of Days Spent on Each Functional Activity (Staff time not included)

Firm Type	Business Analysis	Development	Testing	Other
OSO	83	56	62	9
Clearing	88	68	52	2
Self-Clearing	68	66	45	31
Not Self-Clearing	48	107	38	16
Exchange	58	58	86	9

Note: Total number of man days estimated to 42 weeks multiplied by 5 days a week = 210 days