



# SUNGARD ANALYSTS' DAY

BOSTON | DECEMBER 6, 2010



TRANSPARENCY • EFFICIENCY • NETWORKS

WHAT'S YOUR POSITION?

**SUNGARD**<sup>®</sup>

TEN IN PRACTICE

## High Performance Trading

Ralston Roberts

SVP

SunGard



# Agenda

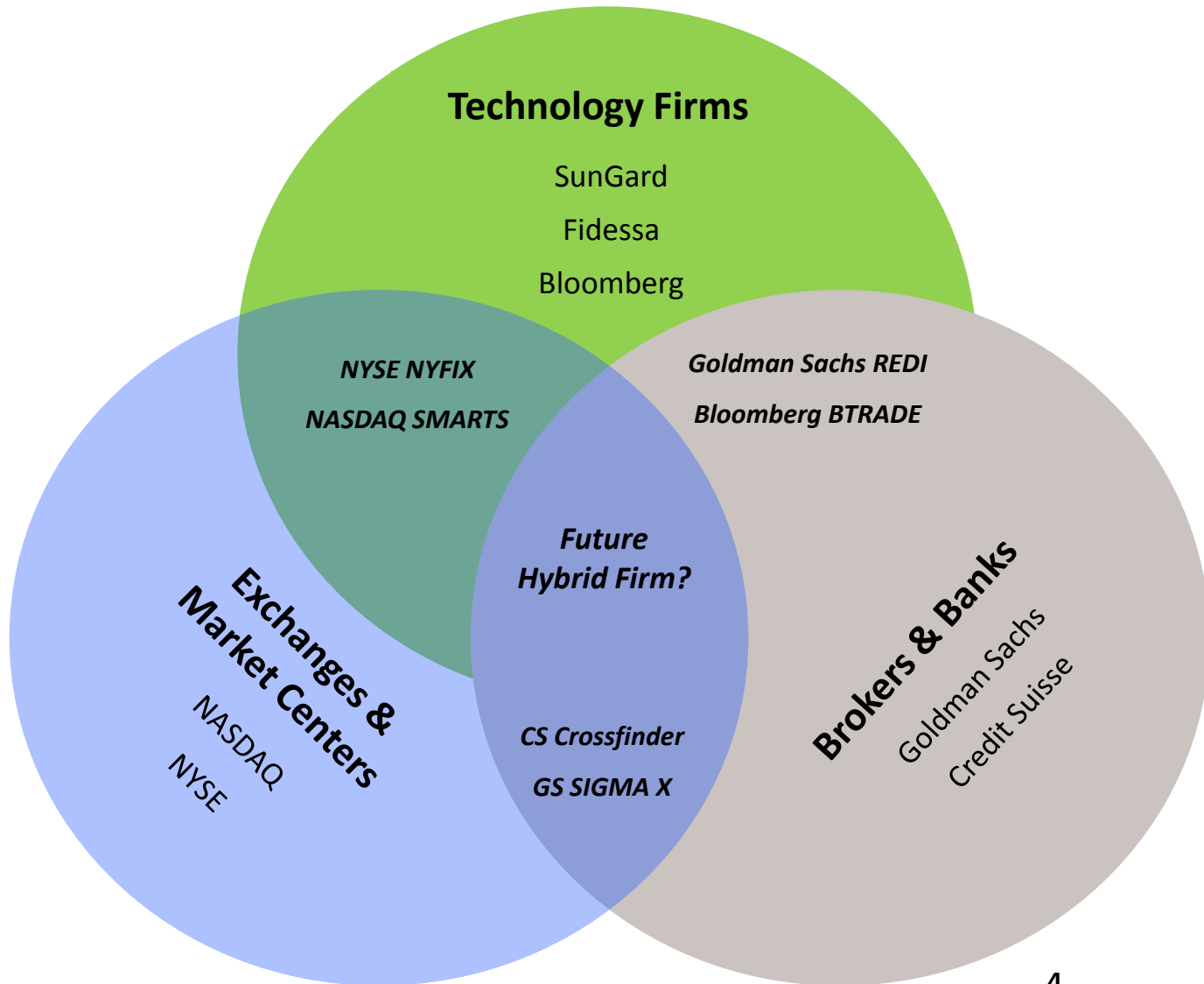
- Industry Trends and Valdi Difference
- The Wheel in Motion
  - Streamline workflow
  - Become more agile and full service
  - Address compliance requirements
  - Control the costs of trading and solicit new order flow

# Industry Trends & Valdi Difference

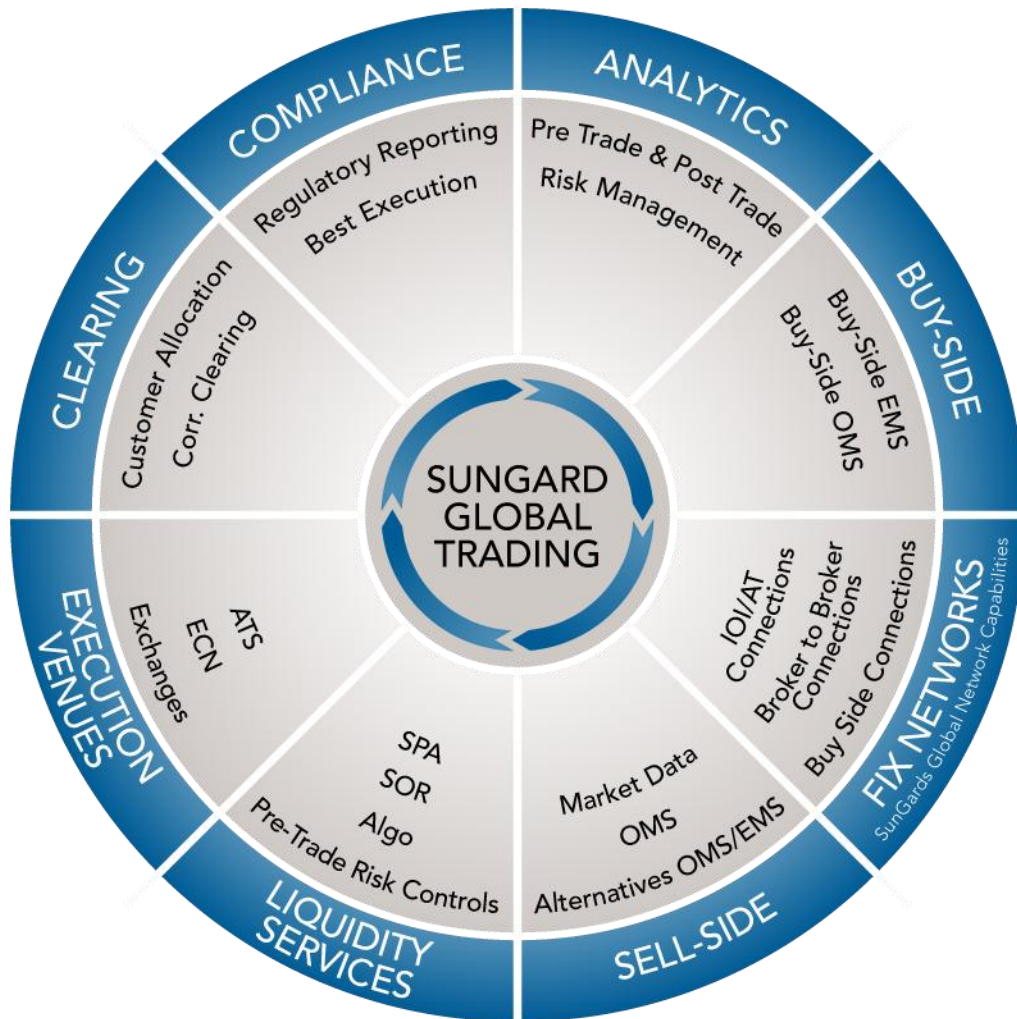
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# Competitive Landscape



# Industry Trends



More than 10 technology vendor "touch points" during life of order



Compliance and regulatory trends open doors for mistakes, fines and reputational risk



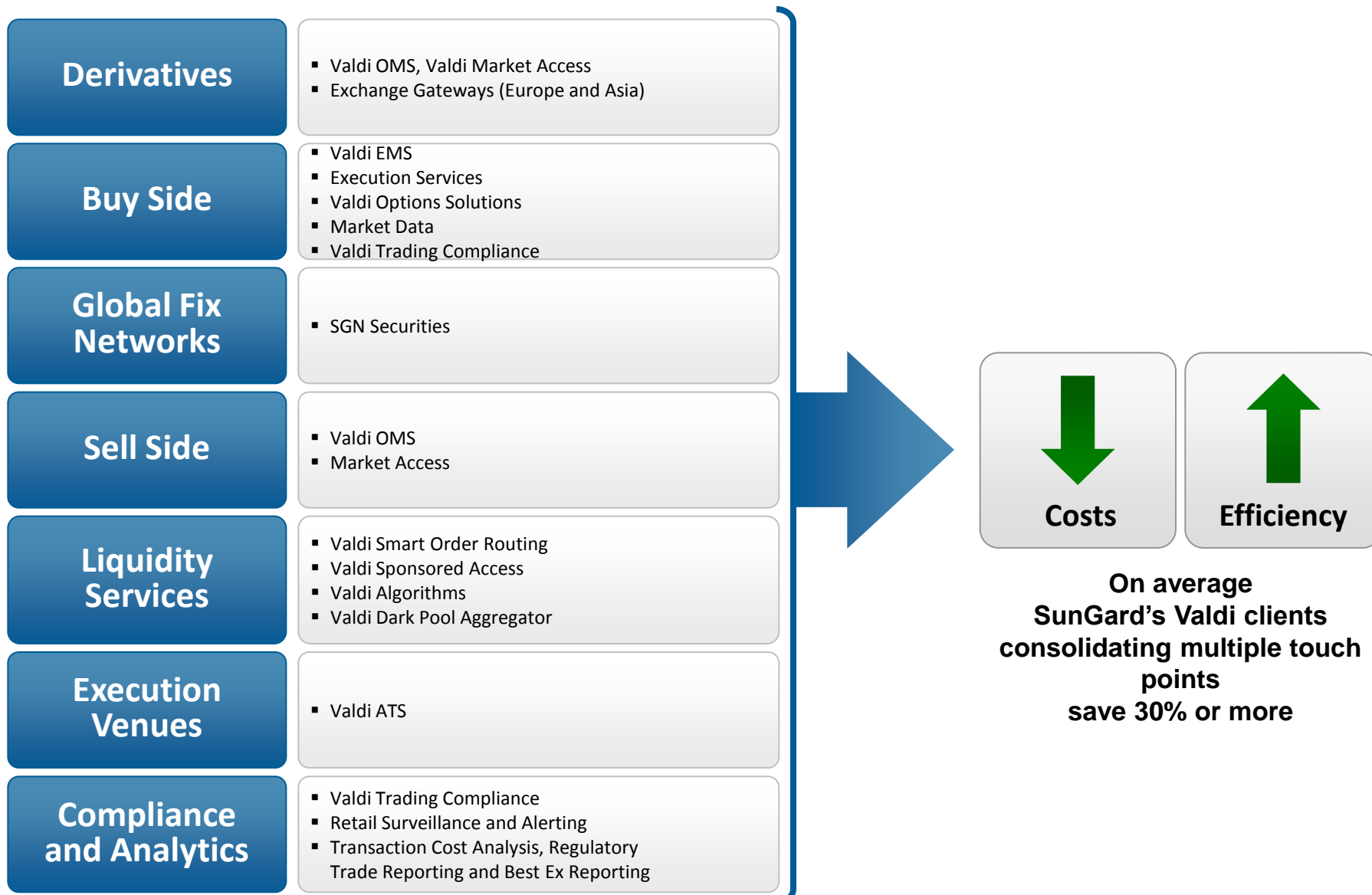
Increasing customer demand for Global Trading capabilities



Client firms are increasingly looking to consolidate the # of technology and execution vendors



# Valdi in Action



# The Valdi Advantage

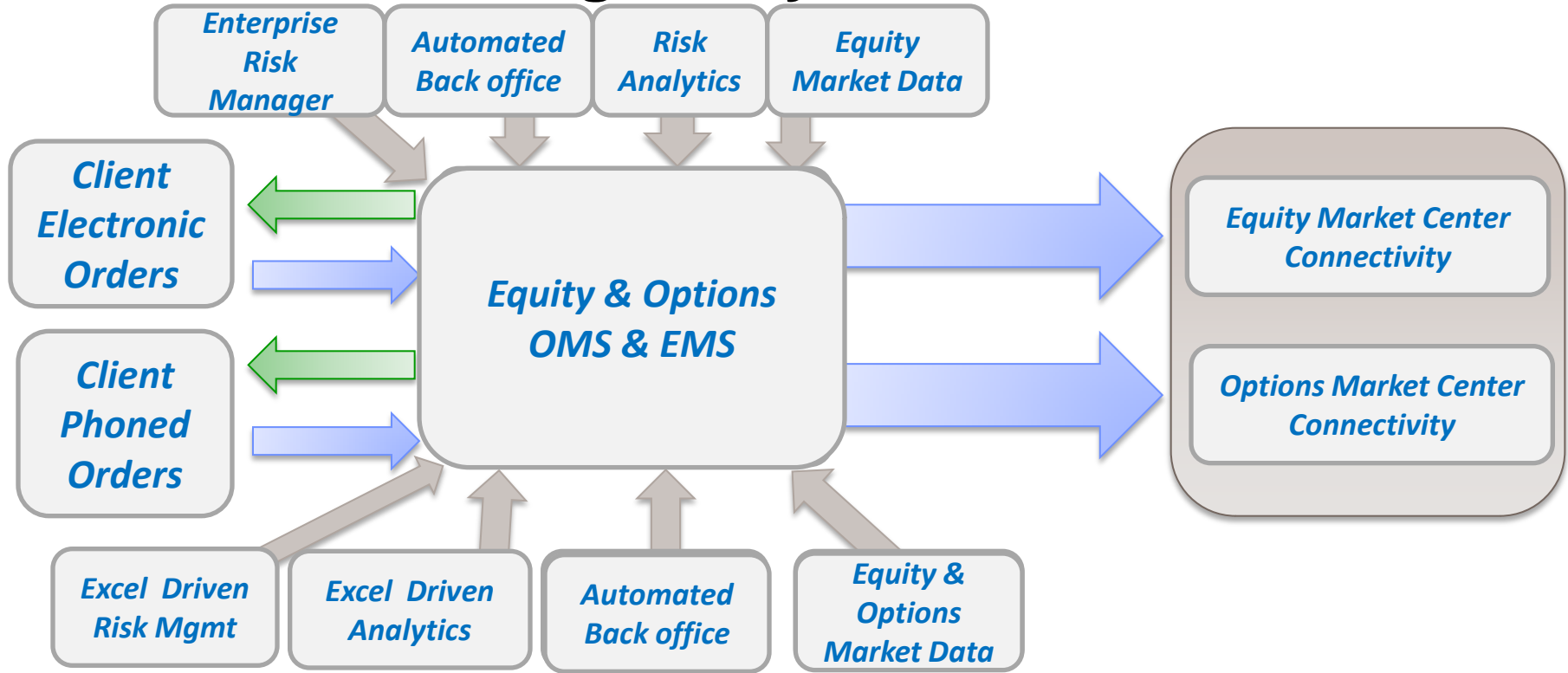
- Streamline workflow
  - One-click access to sales and execution trading functions
  - Trading automation; auto order routing, auto indications and auto advertised trades
- Become more agile and full service
  - Respond faster to market changes via an integrated trading platform
  - Dynamically access more regions and more asset classes
  - Grow existing revenue from current accounts
- Address compliance requirements
  - Ensure compliance with Best Ex obligations and Regulatory Requirements
  - Gain confidence in responding to TAMMS, SEC and FINRA audits/inquiries
- Control the costs of trading and solicit new order flow
  - Sponsor screens to buy side customers
  - Take advantage of Liquidity and Execution Services
  - Leverage Transaction Cost Analytics

# Streamline Workflow

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# Multi Asset Trading Today



## Old World

- Multiple/Lack of Order Management Systems
- Lack of Electronic Processes (orders & clearing)
- Multiple Sources of Market Data
- Multiple Market Center Networks
- Manual Calculation of Risk & Theoretical Values
- Fragmented View of Firm Risk

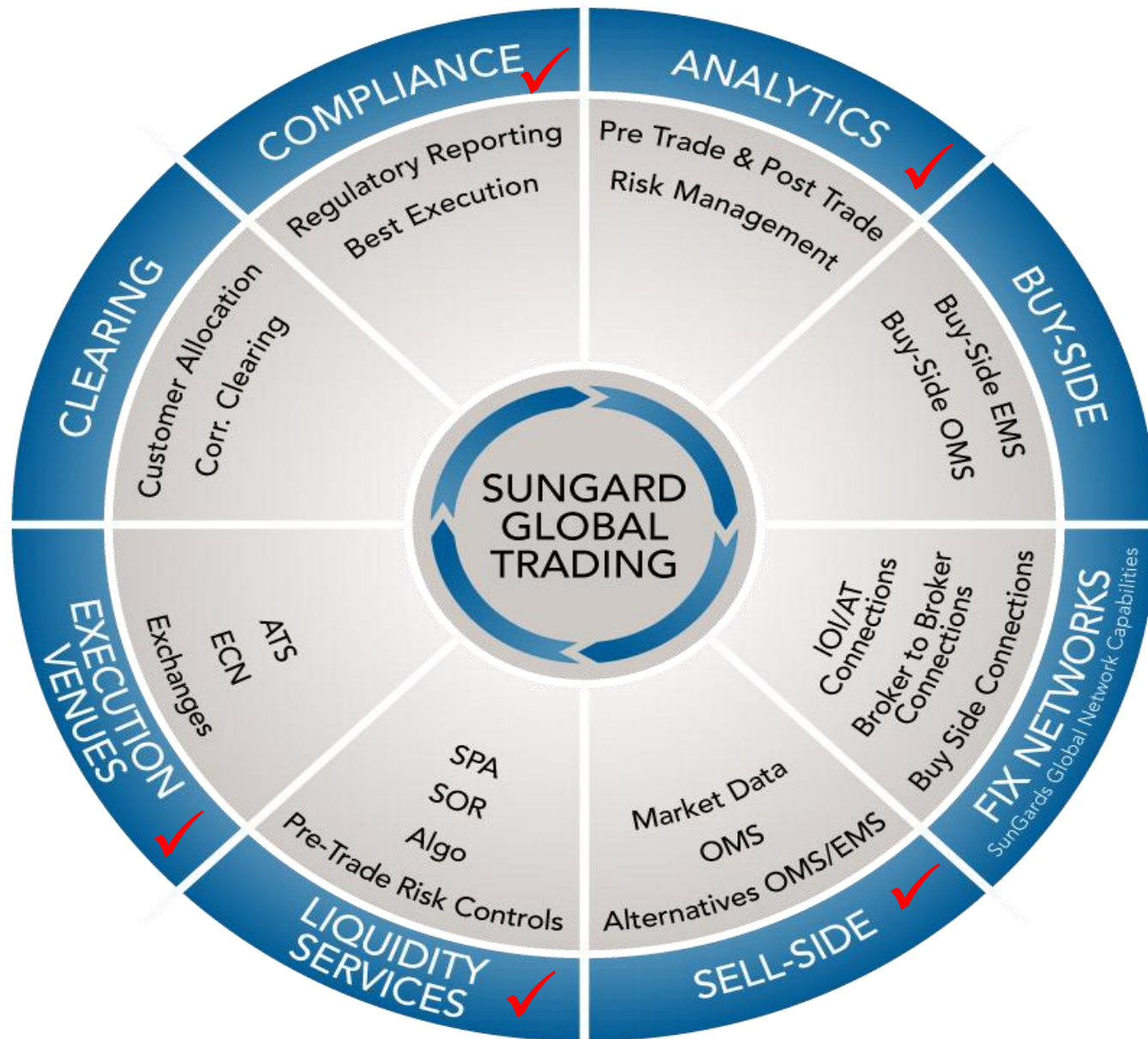
## New World Requirements

- Single Order Management System for Equity & Options Business
- Electronification of Manual Processes
- Consolidation of Market Data Sources and Market Access Networks
- Systematic/Automated Calculation of Risk and Theoretical Values
- Consolidated View of Firm Risk

# Valdi Options – Solution Overview

- Valdi Options is an integrated, electronic options trading & analytics offering that seeks to meet the needs of the front, middle & back offices who engage in options trading.
- Robust Option Analytics
  - Pre-Trade Analytics
    - Look at option theoretical values, generate trade ideas
  - Execute orders through Valdi EMS
    - See trade opportunity and initiate order
  - Post-Trade Risk Management
    - Perform scenario analyses for many stock & options positions
- Flexible Options Trading Platform
  - Paperless Trading
  - Process Working Orders and DMA
  - Cross orders
  - Apply DMA executions to Client orders
  - Perform CMTA transfers
- Back office
  - Back Office connectivity for Options (Atlas)
  - Drop Copy interface available
  - Executions feed directly to position server for Risk Management

# Valdi in Action with “Customer A”



# SunGard Valdi Options In Action

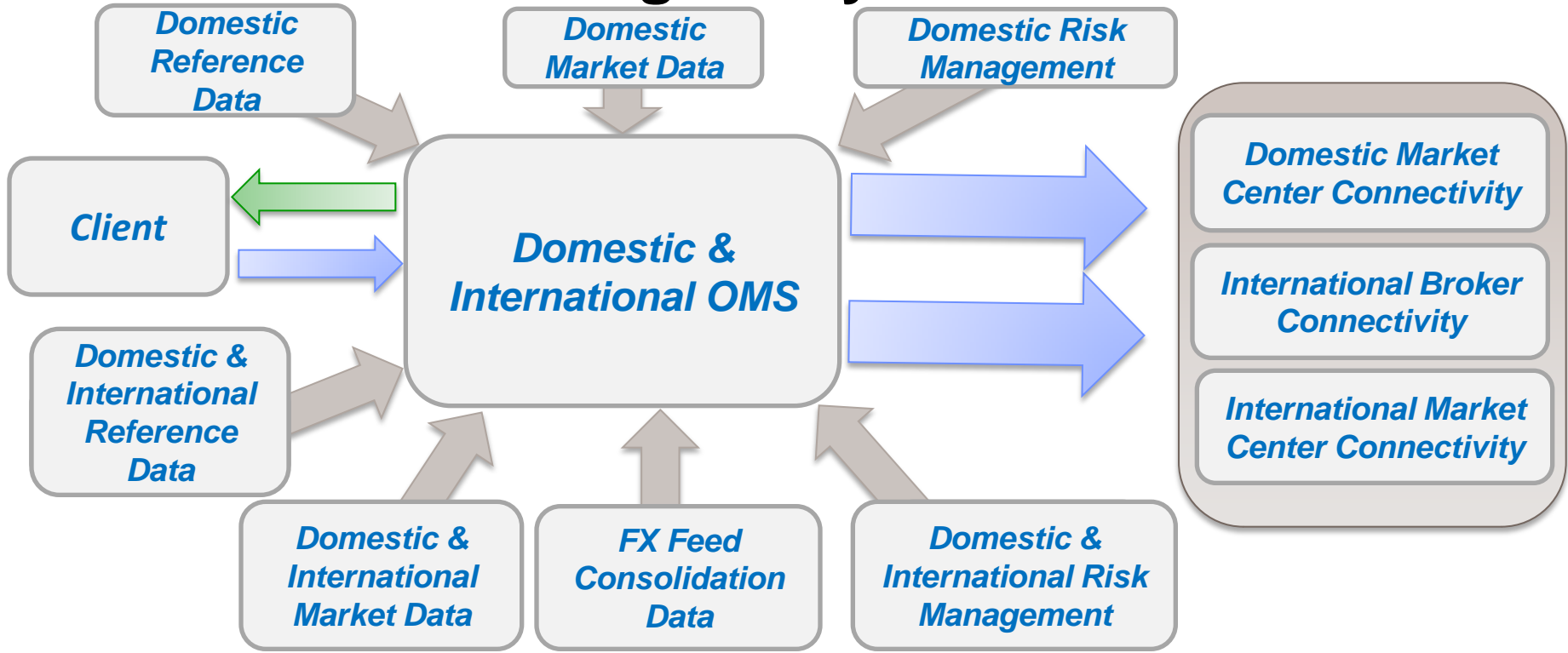
- “Customer A”
  - Primary Business Problem:
    - No single platform for managing options order flow
    - Manual process for analyzing and identifying options trading opportunities
    - Manual process for capturing orders and clearing options activity
    - No single view of the firms options and equities exposure
- Valdi International Solution:
  - Consolidated process for managing equity and options order flow
  - Automated and improved on process for analyzing and identifying options trading opportunities
  - Automated the process for capturing and clearing client orders
  - Consolidated Market Center Connectivity and Market Data

**Become More Agile and Full Service**

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# International Trading Today



## Old World

- Multiple Order Management Systems
- Separate Market Data Connectivity
- Separate Brokerage Connectivity
- Separate Market Center Connectivity
- Multiple Books and Records
- Fragmented View of Firm Risk

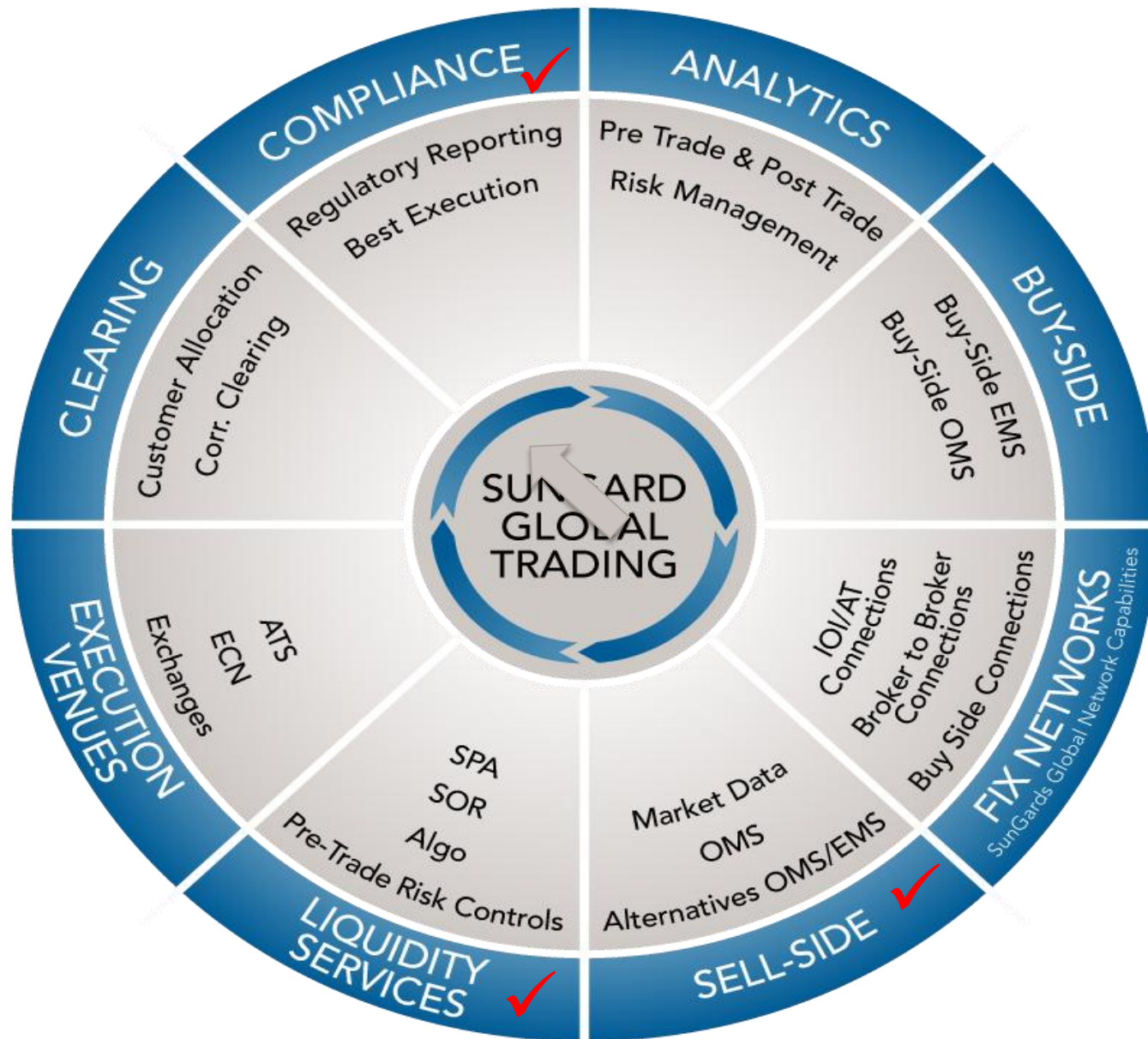
## New World Requirements

- Single Order Management Systems
- Single Market Data Source
- Single Broker Network
- Single Market Center Network
- Single Source for Books and Records
- Consolidated View of Firm Risk

# SunGard Valdi International Trading

- The Valdi International solution is an integrated OMS/EMS platform that incorporates multi-asset, multi-currency trading functionality.
- Valdi International includes:
  - Dynamic FX feeds for risk and execution management.
  - Foreign Reference (Symbology) and Market Data for all major exchanges throughout Europe, North and South America, Asia, and Africa.
  - Automatic linkage between Domestic and Foreign listed securities (ADR – ORD.)
  - Global Access to sponsoring brokers and exchanges through SunGard Global Network (SGN)
  - Global Smart Order Routing
  - Consolidated Risk Management
  - 23 X 6 Trading capabilities and support.

# Valdi in Action with “Customer B”



# SunGard Valdi International Trading In Action

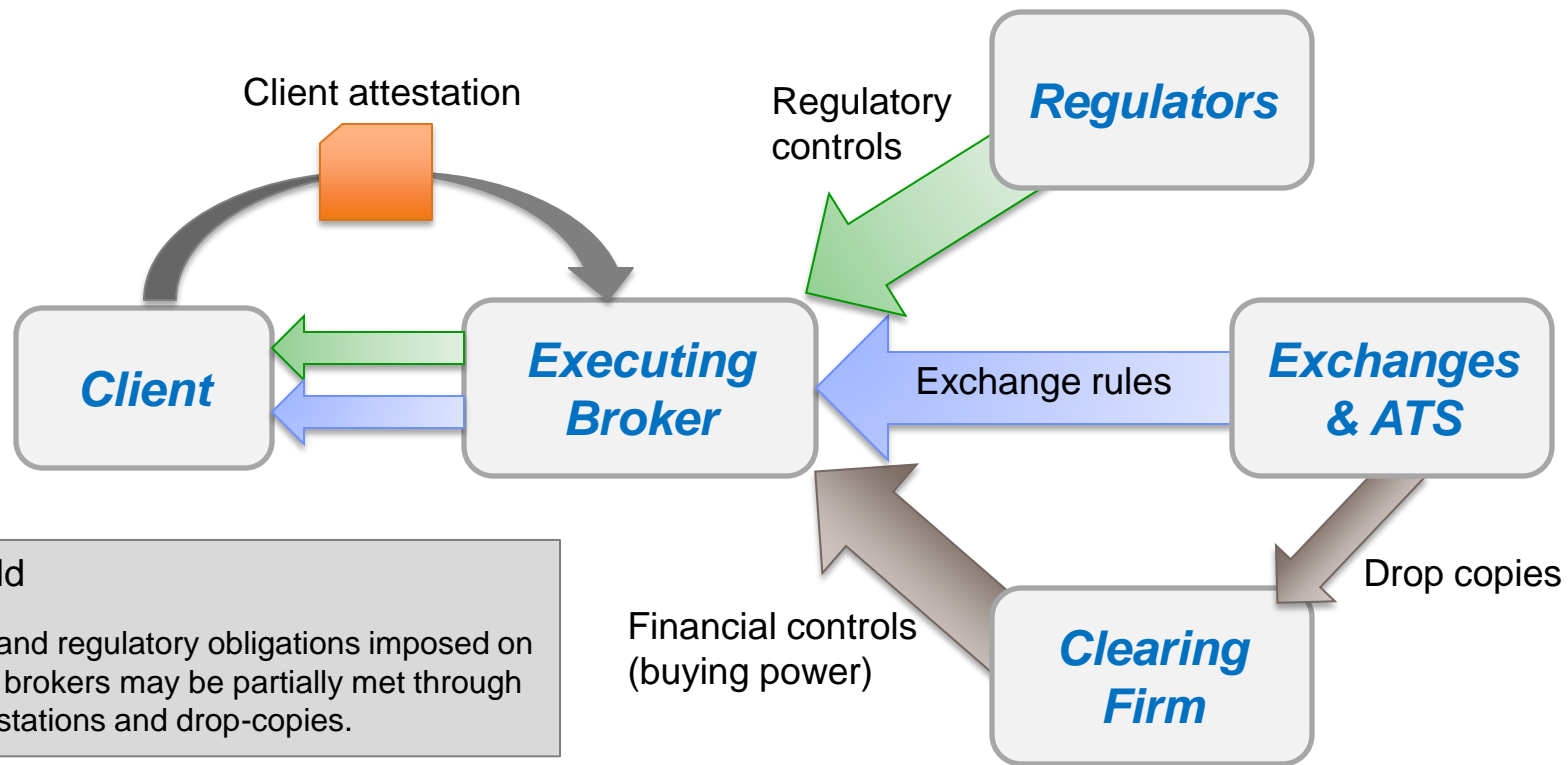
- “Customer B”
  - Primary Business Problem:
    - Lack of customizable solution to accommodate proprietary business model
    - Inability to centralize work flows onto a single platform
    - Inability to effectively manage firm exposure
    - Inability to manage order handling on a 24 hour basis
    - Lack of automation resulted excessive staffing requirements
  - Valdi International Solution:
    - Customized calculations and work flows relating to the firm’s specific business requirements
    - Automated conversion processes from US based securities to Foreign based securities
    - Automated the trading and management of ADR to ORD securities eliminating the need for complex spread sheets and formulas to enact customer transactions.
    - Utilized Valdi International robust API to build proprietary trading logic and eliminate manual calculation and intervention
    - Leverage Valdi Automated Routing to convert and handle orders received during non-US hours and reduced overnight and holiday staffing requirements.
    - Leveraged Valdi Risk Management models and the robust API to mitigate overnight position and order exposure by creating a proprietary smart engine which could interact with Valdi International in the same manner a physical trader could.

# **Address Compliance Requirements**

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# Changing Need for Pre-Trade Controls



**Old World**  
Financial and regulatory obligations imposed on executing brokers may be partially met through client attestations and drop-copies.

**Brave New World for Executing Brokers**  
SEC is proposing tough new rules for sponsoring/executing brokers (SEC rule 15c3-5), which limits the ability of executing brokers to “pass” these controls elsewhere, or monitor post-trade.

**IMPACT:** When implemented, executing brokers must themselves provide real-time order-level checking or risk losing their SPA/DMA business.

**TIMING:** SEC consultation closed 03/29/10 and expecting final rules shortly. Compliance date may be as soon as Q4 2010.

# SunGard Solution

- Real-time Order Validation is a new component designed to meet the needs of brokers offering sponsored access or DMA solutions.
  - Fat-finger checks (price deviation, volume relative to ADV)
  - Buying Power checks
  - RegSHO circuit breaker
  - Short sale / Easy To Borrow checks along with locate checks
- Established as a framework to allow us to quickly add additional checks.
- Distributed system, allowing a centralized view and control over multiple routes and access points.
  - Support for native exchange FIX and OUCH protocols
  - Exchange co-location, SunGard datacenter or local installation
- Designed to support very high transaction volumes.
  - < 100  $\mu$ s throughput latency
  - Sustained order entry rate of 3,000 orders/sec

# Control the Cost of Trading

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# Control the Cost of Trading



Customer  
Commissions



Technology  
Expense



Market Data  
Expense



Market Center  
Expense



Shares  
Rewards



Firm Profit  
Margin

## Old World

- Continued Pressure from clients to reduce commission rates
- Continued investment in technology to expand product coverage
- Growing Costs associated with market center connectivity
- Tighter Profit Margins for Firms

## New World Requirements

- Introduction of Shares Rewards
- Reverse declining profit margin to growing profit margin

# Valdi Shares Rewards Case Study

## Example of Monthly Invoice of Valdi customer leveraging our Execution Services

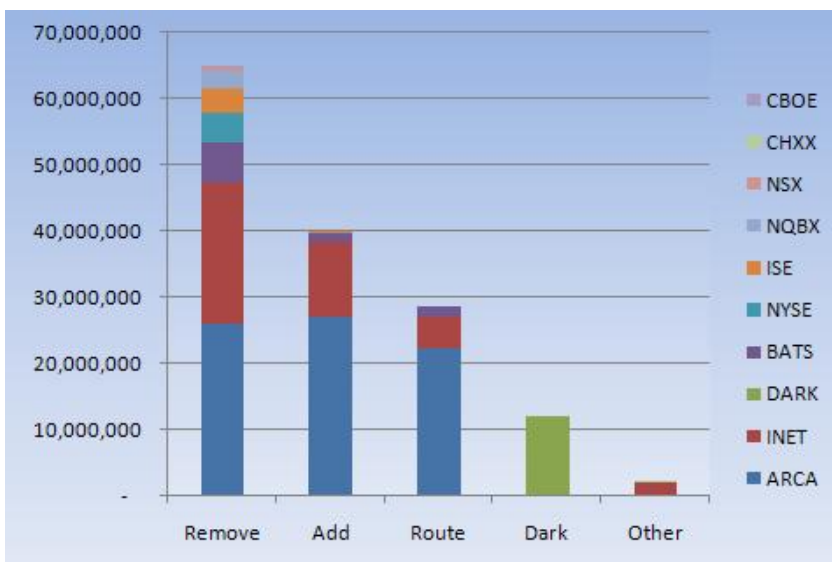
Execution Summary	Monthly Volume	Valdi Execution Fee	Execution w/Out Valdi	Savings
Valdi Algorithms	60,000,000	\$90,000	\$120,000	(\$30,000)
Valdi Dark & ATS	40,000,000	\$72,000	\$80,000	(\$8,000)
Valdi DMA	200,000,000	\$160,000	\$224,000	(\$64,000)
All-In SOR	140,000,000	\$322,000	\$350,000	(\$28,000)
Added Tier	60,000,000	(\$162,000)	-\$126,000	(\$36,000)
		\$322,000	\$424,000	(\$102,000)
Software Summary		Valdi Fee	3rd Party Software	Savings
OMS Fee		\$100,000	\$100,000	\$0
Compliance Fee		\$40,000	\$40,000	\$0
		\$140,000	\$140,000	\$0
<b>Total Fee</b>		<b>\$462,000.00</b>	<b>\$564,000</b>	
		Rewards Amount	Rewards Amount	
Shares Rewards	300,000,000	-\$45,000	\$0	
		Total SunGard Fee	Total 3rd Party Fee	% Savings
The Valdi Difference		\$417,000.00	\$564,000	26%

The following information is a case study of the how we are currently managing a Valdi customer. This slide illustrated how execution savings can effectively pay for 38% of technology costs.

# Valdi Consultative Approach to Client Services

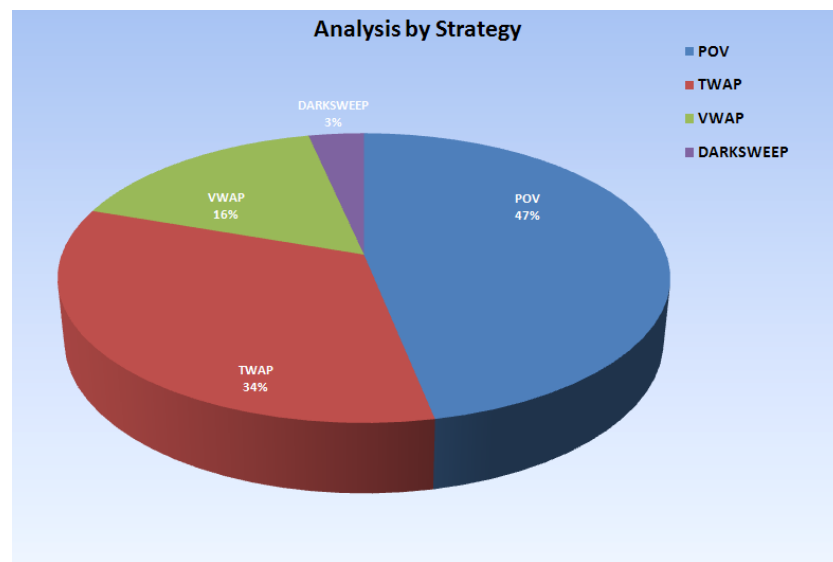
## Execution Analytics (illustrative data)

Venue Execution Breakdown with Venue Rebate Pricing



Venue	% Breakdown	Total	Remove	Venue Fee	Add	Venue Fee	Route	Venue Fee	Dark	Venue Fee	Other
ARCA	51%	75,930,707	26,166,544	.0031	27,029,281	-0.0023	22,462,057	0.0033	-	-	272,825
INET	26%	39,047,641	21,169,715	.0029	11,286,112	0.00245	4,636,483	-	-	-	1,955,331
DARK	8%	12,144,016	-	-	-	-	-	-	12,144,016	.002	-
BATS	6%	9,294,586	6,061,988	.0029	1,561,366	-.002	1,659,173	0.003	-	-	12,059
NYSE	3%	4,522,200	4,438,600	.002275	83,600	-0.000525	-	-	-	-	-
ISE	2%	3,646,496	3,630,696	.0034	15,500	-0.0025	-	-	-	-	300
NQBX	2%	2,632,074	2,632,074	.003	-	-	-	-	-	-	-
NSX	1%	768,621	768,621	.0034	-	-	-	-	-	-	100
CHXX	0%	80,664	75,764	.0034	-	-	-	-	-	-	4,900
CBOE	0%	50,700	50,700	.0014	-	-	-	-	-	-	-
<b>Total</b>	<b>100%</b>	<b>148,117,705</b>	<b>64,994,602</b>		<b>39,975,859</b>		<b>28,757,713</b>		<b>12,144,016</b>		<b>2,245,515</b>

Algo Strategy Breakdown with Effective Rates by Strategy

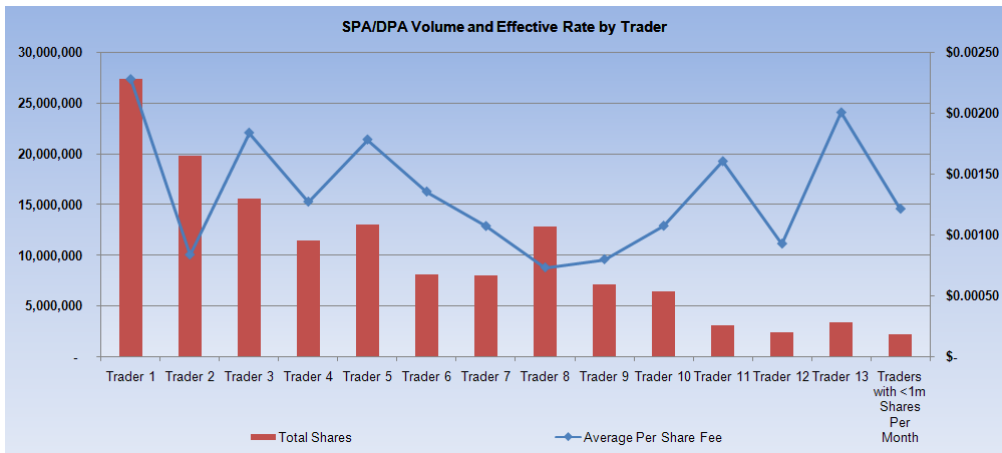


Strategy	Shares	Total Fee	Venue Fee	Technology Fee	Effective Rate	Net Effective Rate w/ Shares
POV	35,171,703	\$ 49,021.35	\$ (21,322.06)	\$ 70,343.41	\$ 0.0014	\$ 0.0010
TWAP	25,117,363	\$ 27,919.42	\$ (22,315.30)	\$ 50,234.73	\$ 0.0011	\$ 0.0011
VWAP	12,249,514	\$ 9,149.16	\$ (15,349.87)	\$ 24,499.03	\$ 0.0007	\$ 0.0007
DARKSWEEP	2,561,616	\$ 6,603.21	\$ 1,479.98	\$ 5,123.23	\$ 0.0026	\$ 0.0026
<b>Total</b>	<b>75,100,196</b>	<b>\$ 92,693.14</b>	<b>\$ (57,507.26)</b>	<b>\$ 150,200.39</b>	<b>\$ 0.00123</b>	<b>\$ 0.000833</b>

# Valdi Consultative Approach to Client Services

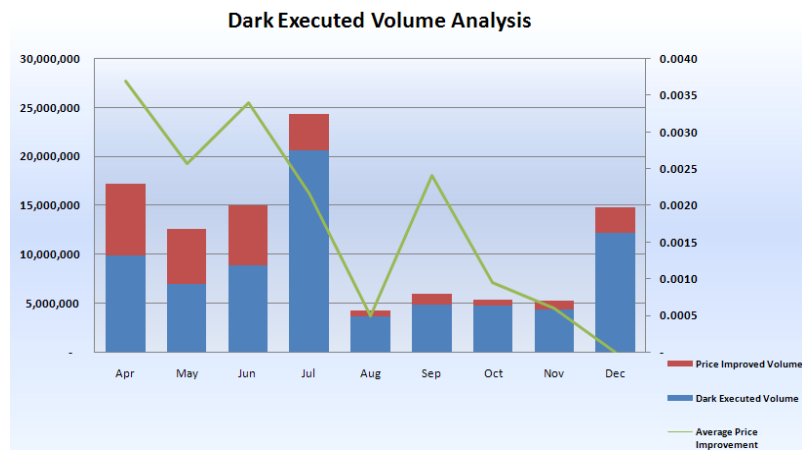
## Execution Analytics (illustrative data)

### Trader by Trader Execution Breakdown



Trader	Total Assent Fee	Average Per Share Fee	Total Shares	Added	Dark Aggregator	Removed	Routed	Other
Trader 1	\$ 62,214.79	\$ 0.00228	27,335,814	2,484,912	3,766,362	17,505,530	3,535,803	43,207
Trader 2	\$ 16,511.70	\$ 0.00084	19,766,660	7,075,328	2,287,052	7,707,541	2,154,384	542,355
Trader 3	\$ 28,521.48	\$ 0.00184	15,527,208	2,647,424	1,990,760	7,466,822	3,234,388	187,814
Trader 4	\$ 14,501.45	\$ 0.00127	11,413,210	3,131,700	1,130,249	5,043,860	1,716,744	390,657
Trader 5	\$ 23,207.00	\$ 0.00178	13,032,175	2,998,630	498,978	4,786,186	4,640,104	108,277
Trader 6	\$ 10,861.35	\$ 0.00135	8,024,674	2,294,048	272,223	4,303,527	1,022,613	132,263
Trader 7	\$ 8,475.73	\$ 0.00107	7,918,869	2,536,027	777,719	3,921,243	605,729	78,151
Trader 8	\$ 9,363.20	\$ 0.00073	12,815,153	5,391,697	275,424	3,338,681	3,763,626	45,725
Trader 9	\$ 5,626.08	\$ 0.00080	7,050,717	2,755,068	484,205	2,339,694	1,383,388	88,362
Trader 10	\$ 6,898.69	\$ 0.00107	6,431,887	1,981,235	380,339	2,259,656	1,368,059	442,598
Trader 11	\$ 4,921.50	\$ 0.00160	3,071,847	869,600	-	1,693,105	507,942	1,200
Trader 12	\$ 2,189.79	\$ 0.00093	2,364,298	846,769	192,364	626,580	644,576	54,009
Trader 13	\$ 6,642.10	\$ 0.00200	3,315,417	307,226	-	569,064	2,371,831	67,296
Traders with <1m Shares Per Month	\$ 2,619.62	\$ 0.00121	2,160,997	750,398	41,604	827,236	522,438	19,321

### Dark Execution Analytics



	Dark Executed Volume	Price Improved Volume	Average Price Improvement
Apr	9,884,478	7,291,495	0.0037
May	6,936,663	5,677,158	0.0026
Jun	8,821,846	6,177,251	0.0034
Jul	20,624,024	3,755,936	0.0022
Aug	3,599,285	590,883	0.0005
Sep	4,801,298	1,161,444	0.0024
Oct	4,767,863	549,447	0.0010
Nov	4,353,801	876,129	0.0006
Dec	12,144,016	2,660,257	0.0035
<b>Total</b>	<b>59,435,457</b>	<b>26,079,743</b>	<b>0.0022</b>

# Valdi - 360° Degree Trading

- Questions & Comments

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