

International Swaps and Derivatives Association, Inc. (ISDA®)

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OPERATIONS

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December 2003

ISDA Operations Committee issued a strategy paper for OTC derivatives operations.

Going Forward: A Strategic Plan

...Create a professional marketplace that works together to develop a unified strategy, standards and best practices to benefit the industry as a whole...

Going Forward: A Strategic Plan

A Future State Vision – Memorialized in the 2004 Implementation Plan

1) Confirmations

	Timing	
	<u>Vanilla</u>	<u>Complex</u>
Verification – Principal Details	T+0	T+0
Dispatch – By one or both Counterparties	T+1	T+5
Checking & Resolution – of Queries	T+5	T+10

2) Settlement Efficiency & Cash Flow Matching

Submit – Schedule of Upcoming Payments	S-10	S-10
Resolve – Discrepancies & Agree Match	S-5	S-5
Agree – Net Cash Flow	S-2	S-2

3) Intra Product Netting Capability

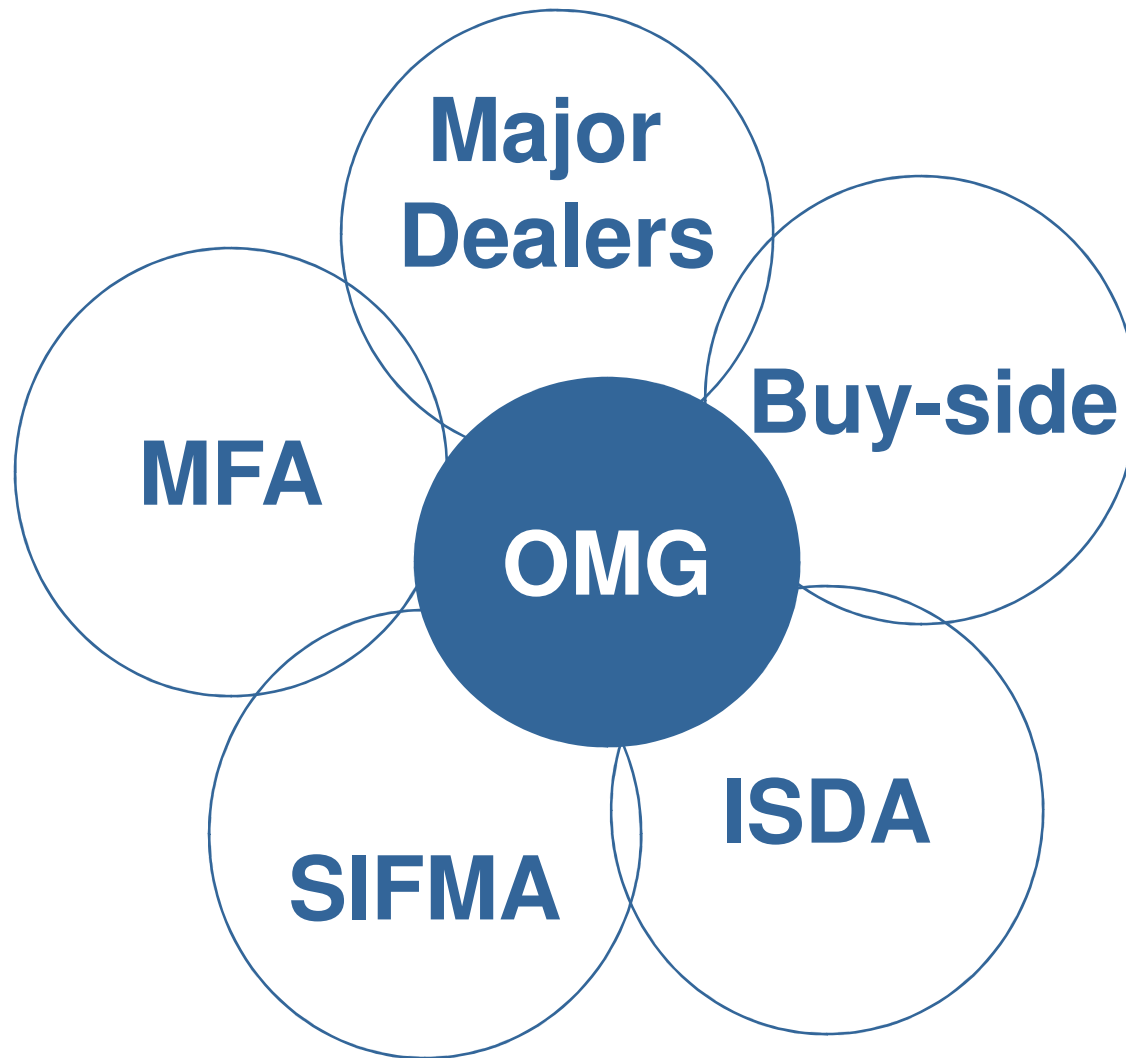
Undertake Intra Product Netting

- All OTC transactions
- Any Settlement Date
- 2 Legal Entities only

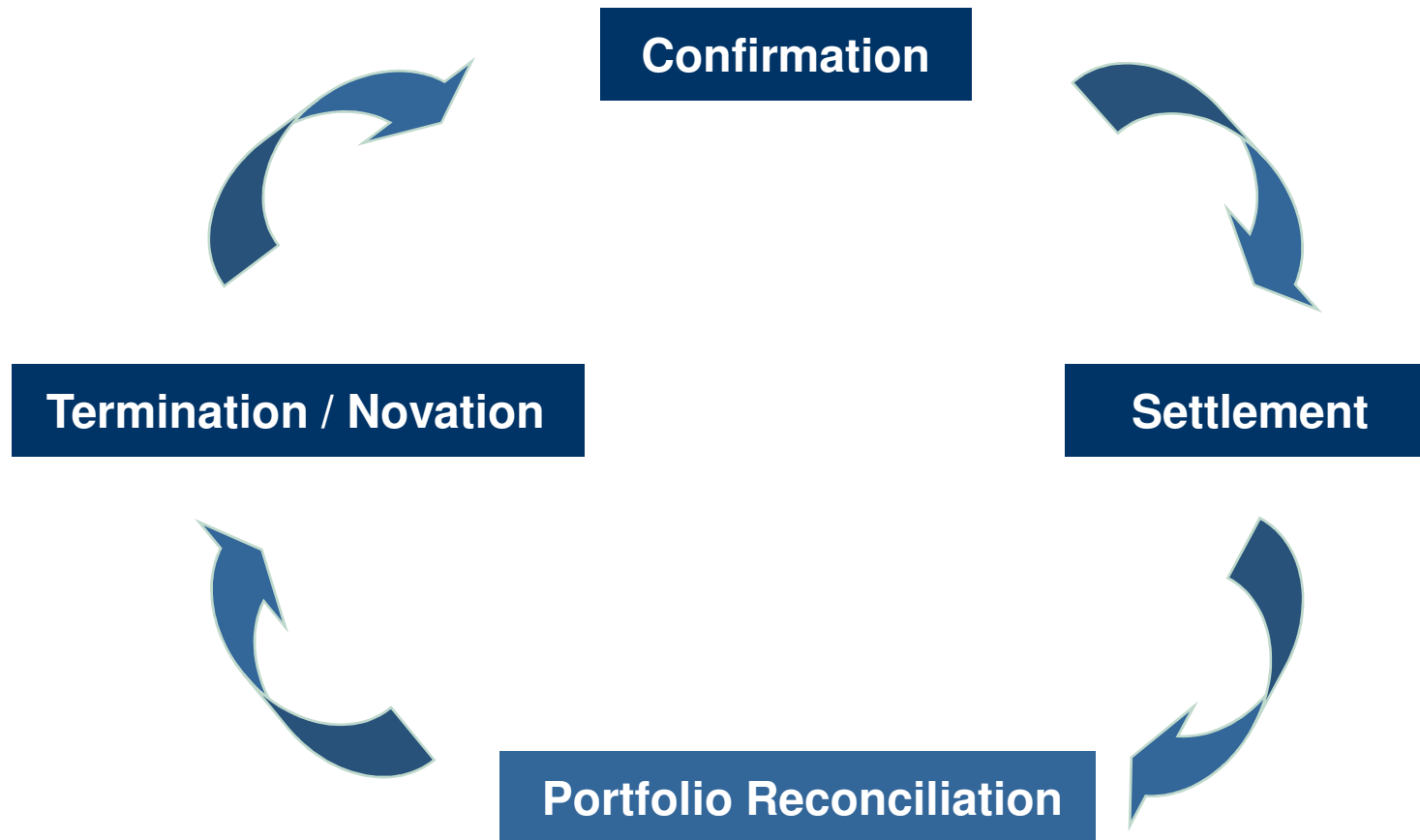
4) Portfolio Management

Industry Associations & Participants

Unified to lead fundamental change in front to back processes across OTC derivative products



Life Cycle of a Derivative Trade



Operations Management Group – Industry Commitments

CDS - Confirmations

	<u>Issued By</u>	<u>Executed By</u>
Electronic confirmations (vanilla)	T+1	T+5
Non-Electronic confirmations (complex)	T+10	T+30

Expectation is to achieve T+0 for the vast majority of trades with the remainder issued by T+1.

“Our goal is a marketplace that matches its trades on trade date.”

(OMG Letter to the Federal Reserve Bank of New York – March 2008)

Operations Management Group – Latest Industry Commitments

CDS - Confirmations

- Maximize use of **electronic confirmation platforms** for all eligible trades
 - Within 60 calendar days of each new product or service launch, participants will submit or accept alleged transactions electronically in an industry accepted electronic platform. These trades will feed into the DTCC **Trade Information Warehouse**
- **Novation requests** to be processed electronically by end of 2008
- All **trade allocations** to be provided on T+0
- New clients quickly on-boarded to electronic platforms
- Specific targets for OMG member firms for all electronic trades except novations:
 - 90% T+1 submission
 - 90% submitted accurately, matching without amendment
 - 92% matched by T+5
 - RED subscribers are to accurately submit 9-digit RED codes

Operations Management Group – Latest Industry Commitments

Equities

- Maximize use of **electronic confirmation platforms** for all eligible trades
- **Standardize documentation** for high volume products and execute Master Confirmation Agreements:
 1. AEJ Share and Index Swap (open market)
 2. AEJ Share and Index Option (open market)
 3. US Share and Index Option
 4. US Share and Index Swap
 5. Japan Share and Index Option
 6. EUR Share and Index Swap
- Maximize use of **electronic confirmation platforms** for all eligible trades IRS:

IRS

- Efforts in the industry to establish best practices which align to CDS & Equity processing

2008 – Industry Practice

CDS - Settlement Efficiency & Cash Flow Matching

2008

	Timing	
	<u>Vanilla</u>	<u>Complex</u>
Submit – Schedule of Upcoming Quarterly Payments	S-10	S-10
Resolve – Discrepancies & Agree Match	S-5	S-5
Agree – Net Cash Flow	S-2	S-2

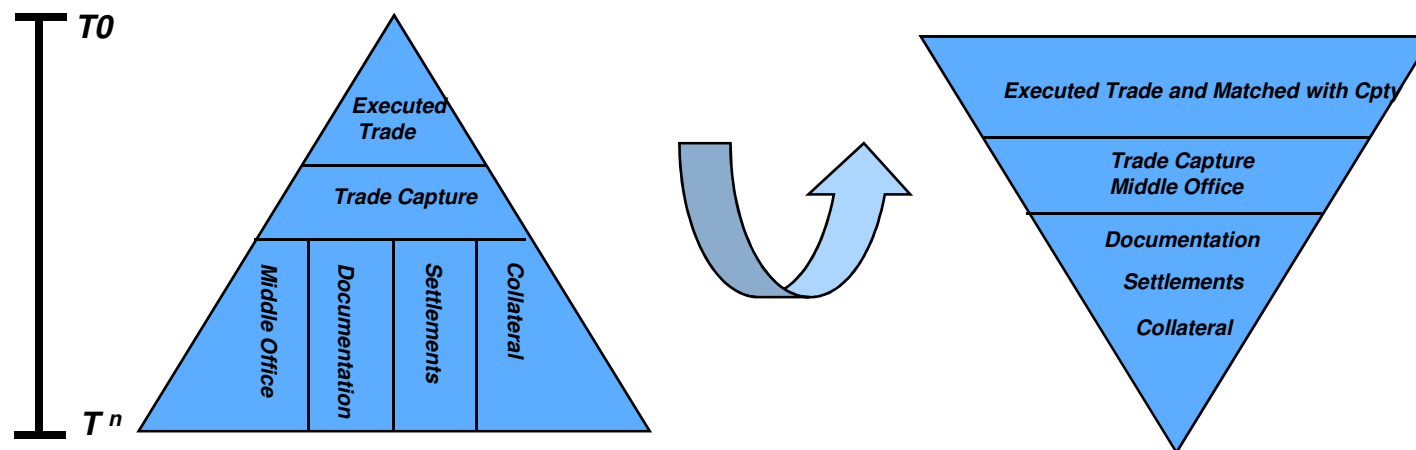
2008 Status

- Timing is generally consistent with 2003 goals
- January 2008 - DTCC & CLS launch their central settlement service for over-the-counter credit derivatives transactions. The service is provided through DTCC's Trade Information Warehouse. This service provides an automated solution for calculating, netting and issuing payments between counterparties to bilateral contracts.

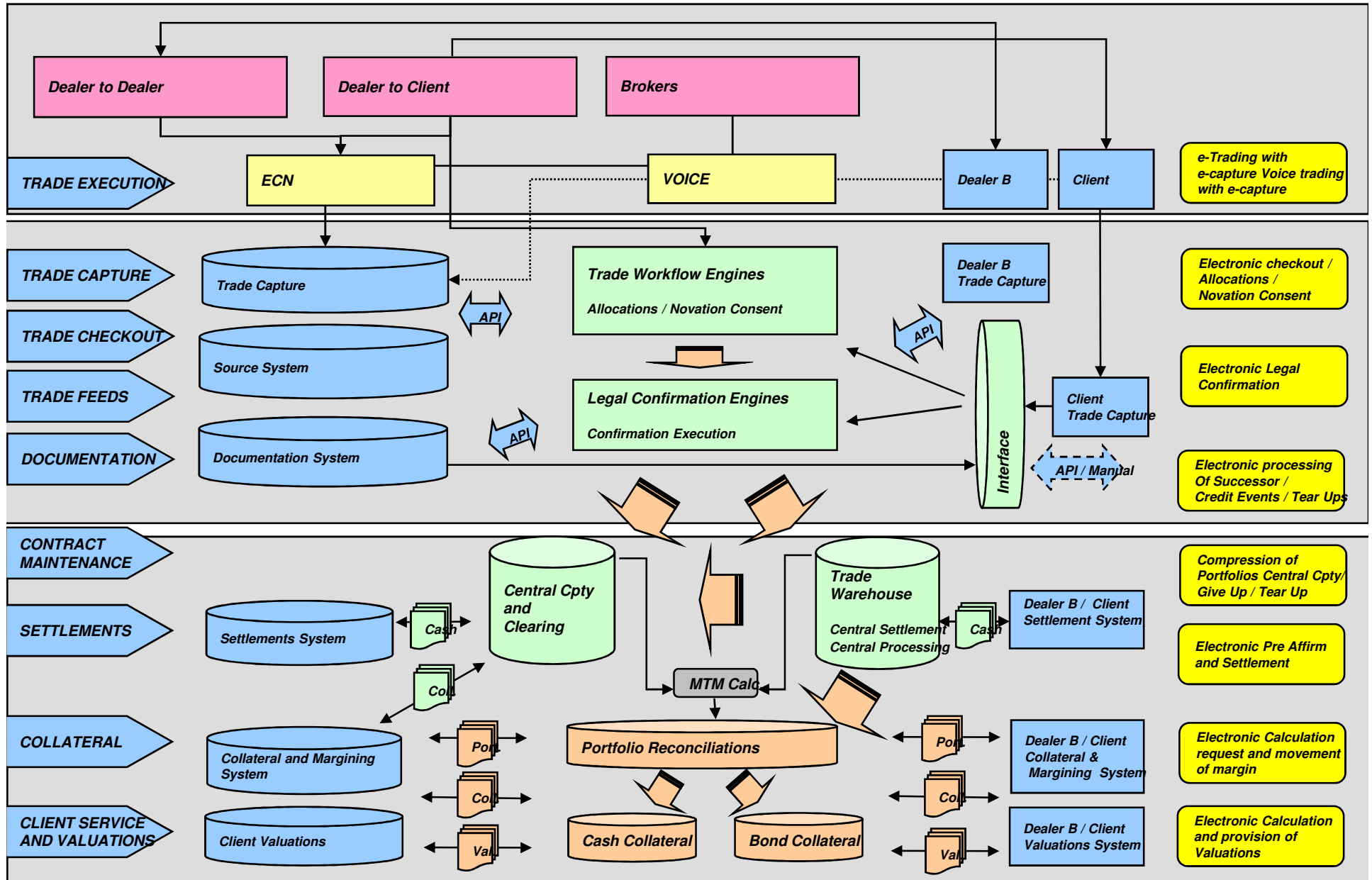
Fundamental changes: the Inverted Pyramid

The OTC Derivative Operations Industry is fundamentally changing the way it supports and processes transactions by inverting and automating the support pyramid, by delivering a combination of interoperable and scalable infrastructures, to achieve the following objectives:

- Scalable infrastructure to support current and future volume
- Efficient automated processes to provide capacity
- Lowest cost



Industry Infrastructure Target Model



Derivatives Novations

- Novation Protocol launched in October 2005 for credit and rates derivatives
 - Dramatic risk reduction: Counterparty understood, unconfirmed trades reduced, settlement fails reduced
- E-mail instituted as stop-gap measure to conduct process
- Dealers may receive 2000+ novation emails and vendor GUI messages daily per region
- Novations are the greatest operational problem facing most dealers
 - Tri-party agreement
 - Handled on e-mail
 - Volume spikes exponentially increase errors from lack of scale

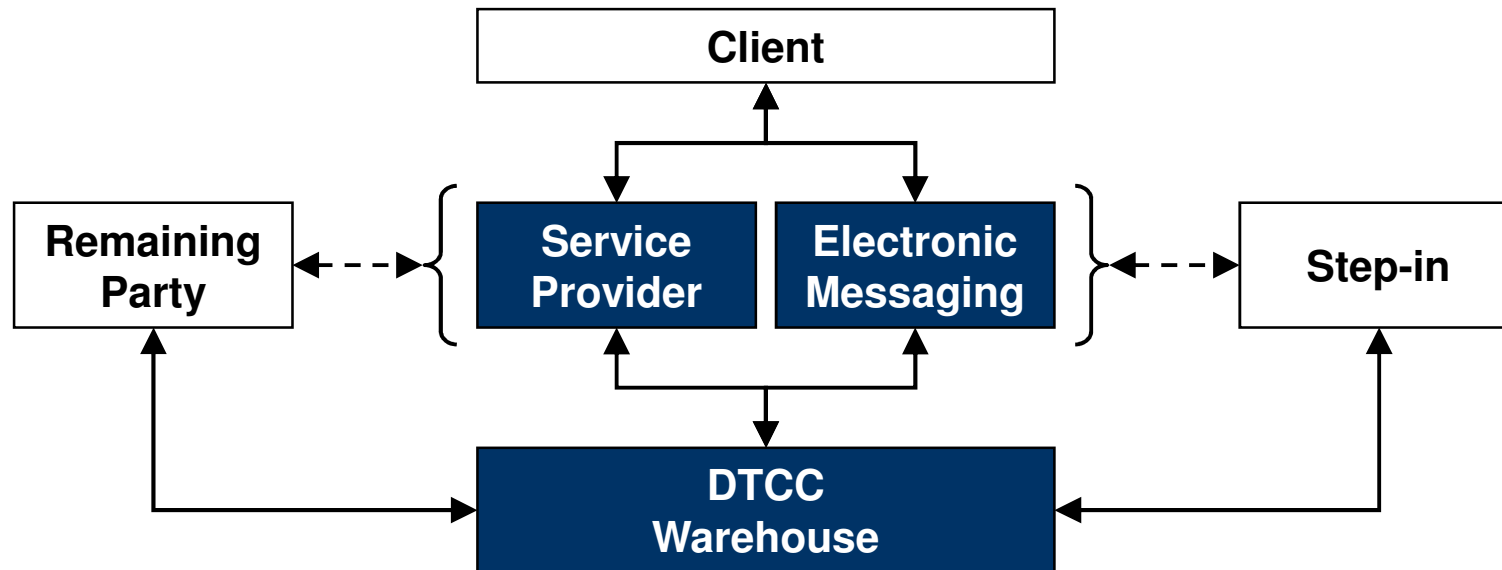
Problems with E-mail Novation Process

- Error-prone process: Lost / misdirected emails, wrong addressee, etc
- Highly inefficient and costly: Manual, unscaleable process
- Trade confusion / inaccurate information
- Incorrect collateral calls and valuation statements
- Client frustration
- Inconsistent, difficult reconciliation of trade bookings to hand-typed e-mails
- Ever-escalating dealer staffing required to (try to) manage e-mail queues
- Novation Protocol document could not address all operational problems –
Many issues left up to industry interpretation

Credit Novation Process to Come in 2008

By End of 2008

- All requests and consents via electronic messaging, not e-mail
- Basic system interoperability leveraging DTCC Warehouse records



Credit Industry Infrastructure Advancement

By Mid / Late 2009

- Interoperable infrastructure in place to enable automated novations / unwinds
- Dealer risk systems could automatically action client requests for novations and unwinds
- Non-automated buy side participants' submissions to the Warehouse to feed from an electronic system upon novation consent
- Allocation details electronically communicated from clients, eliminating manual error for dealers who invest in automation
- *Long-term, dramatic cost reduction possible if dealers and clients invest in automation*

Interest Rates and Equity Derivatives

Interest Rates

- Covered by same ISDA Protocol
- Same manual e-mail problems exist
- Some dealers may see hundreds of daily emails
- Credit process solution could accommodate any asset class

Equity Derivatives

- Low current volume
- Working group looking at how to manage process
- 'Lessons learned' from Credit space could be accounted for

Impact on Organisation Models

- Post Trade timelines condensed
- Some functions switch from product aligned to utility based
- Headcount efficiencies realised
- Adjacency dependencies removed / decreased
- Costs Lowered
- Operational Risk Reduced
- Capacity Available to support new products and bespoke client needs

Where Do We Go From Here ?

- **How Do We Deliver:**
 - Governance
 - Working Groups
 - Awareness
 - Migrations
- **Challenges:**
 - Investment
 - Execution - Don't Diverge From The Plan
 - Getting from T1 to T0
- **Lessons Learned:**
 - Collaboration and Support – internal and external
 - Measurement
 - Accountability

Future State Model

Extremely significant juncture as we near our first opportunity to deliver “controlled scalability”

Trades Captured:	ON A TIMELY, COMPLETE AND ACCURATE BASIS using Standardised Booking Methodology and being fed from Affirmation or Broker platforms where available
Trades Documented:	Using an Affirmation or Electronic Confirmation platform or auto generated using standard templates and auto dispatched to counterparts (ideally hosted on industry platform) using trade data strategically sourced from FO
Trades Settled:	Via Central Settlement and/or Clearing service or at minimum agreed via an industry platform using trade data strategically sourced from FO
Life Cycle Events:	Serviced via a Trade Warehouse (incl: Fixings, Successor Events, Credit Events, Novations)
Portfolio Management:	Proactively performed via position transfer, netting, tear-ups
Collateral:	Fully reconciled trade portfolio, facilitating rapid calculation, call, collect, hold and return of collateral, utilising tri-party collateral management
Client Valuations:	Rapidly calculated and provided electronically

What Market Participants Should Know and Do

- Start talking to service providers and your internal technology team:
Credit derivative novation consents need to be off email by YE08;
Correct allocations sent no later than COB on trade date
- Be able to process all eligible products electronically, and soon after each product launches
- Be resourced and/or system-ready to confirm flow CD and ED trades
no later than T+5
- Expect post-trade affirmations and responsiveness from your dealers
- Your dealers are measured on T+1/T+5 (flow), T+10/T+30 (structured):
Expect to get calls if you're not meeting these timelines
- Invest in electronic trade submission or leverage service providers:
You want to be out of the business of 'click to confirm'
- Reduce settlement fails by 1) Ensuring your confirmation and settlement systems are linked and 2) Using Pay/Rec to settle CD trades

Summary

- The industry is addressing operational efficiency in a collaborative and coordinated way.
- Much progress has been made already particularly in credit derivatives.
- The next step is for the entire marketplace to embrace automation.
- All market participants should be aware of the targets set by the industry and should think about how their own firm will meet these requirements.

Appendix: Detailed Industry Infrastructure Target Model

Not complete – for illustrative purposes only

