



*The Depository Trust &
Clearing Corporation*

DTCC Deriv/SERV Custodian Update 2008

January 23rd, 2008

CONFIDENTIAL AND PROPRIETARY

All rights reserved

Copyright (c) 2003-2007 The Depository Trust & Clearing Corporation

By receipt of these materials, the recipient acknowledges and agrees that these materials are and shall remain, and be treated and maintained by any recipient, as confidential and as such may not be disclosed. Further, the recipient agrees that all copyright and other intellectual property rights in or relating to these materials are and shall remain property of DTCC.

Agenda

- **DTCC/DerivSERV Overview**
- **DerivSERV Services provided**
- **Trade Information Warehouse (“TIW”) for Credit Products**
 - **Warehouse overview – What is it?**
 - **TIW Evolution – 2007 Update**
 - **Backload initiative: Migrating existing portfolios**
- **Other Services – Update on Rates and Equities**
- **Benefits of Warehouse for Custodians**
- **TIW 2008 Initiatives**
- **Next Steps**



DTCC Deriv/SERV Overview

Leading provider of trade confirmation and post trade processing automated solutions for the global, over-the-counter (OTC) derivatives market

- **Played a key role in increasing automated processing rates, which contributes to minimizing operational risk and strengthening the market's infrastructure**
 - **Helped market participants achieve an 85% reduction in the backlog of unconfirmed credit derivatives trades in the market by June 2006 – a major commitment made by leading dealers to global regulators**
- **Wholly-owned subsidiary of The Depository Trust & Clearing Corporation (DTCC), established in late 2003**



DTCC DerivSERV Overview – 2007 Highlights

- **Warehouse processing capabilities expanded to include payment calculations, credit event processing and central settlement services**
- **Formed partnership with CLS Bank International in November 2007 to provide central settlement processing for warehouse records**
- **33% increase in customer base (dealer and buy-side firms) extending to over 30 countries. Over 1000 customers live.**
- **Daily average confirmation volume doubled**
- **Payment Reconciliation volume increased over 75%**



Deriv/SERV Family of Services

- **Trade Matching and Confirmation**
 - A single automated legal confirmation platform for a wide range of OTC derivatives products, including credit, equity and interest rate derivatives.
- **Payments Reconciliation (PayRec)**
 - An automated payments matching and netting service for Credit Default Swaps
- **Trade Information Warehouse (TIW)**
 - A centralized and secure global infrastructure for processing OTC derivatives over their life cycle.
 - Payment calculations launched in February 2007 for CDS and CDX transactions
 - Credit event processing capability (including payment calcs) launched in August 2007
 - Central Settlement processing in partnership with CLS launched November 2007
- **Novation Consent (pilot launched Dec 2007)**
 - Pilot service launched in Dec 2007. This service enables Step-out party to initiate a request for Novation consent (includes utilizing the warehouse record) to the Remaining Party. Acceptance by the Remaining party will allow for the creation of an “auto-generated” assignment in the warehouse between all 3 parties - Step-out, Step-In and Remaining Party.



Deriv/SERV Family of Services

- **AffirmXpress**

- A single screen post-trade affirmation platform that lets front-office and operations staff efficiently review and affirm OTC derivatives trades from multiple inter-dealer brokers (IDBs)

- **MCAExpress (Equity products)**

- MCA-Xpress is a Deriv/SERV stand-alone application that permits parties to negotiate and execute ISDA[®]-published MCAs online, and to warehouse all existing MCAs. It takes all ISDA[®]-forms and consolidates them into an easily readable and user-friendly grid.



Trade Information Warehouse Introduction

The Trade Information Warehouse (TIW), a central and secure global infrastructure for the post-trade processing of over-the-counter (OTC) derivatives, was added to Deriv/SERV's suite of products on Nov. 11, 2006

Primary components of the Warehouse

- **A comprehensive central trade database containing the most up-to-date record of each contract (“Gold” records)**
 - ✓ **The Gold record represents the “official legal record” of the trade. In the event of a dispute, it is the gold record which defines the latest state of the contract at any given point in time.**
- **A central support infrastructure that automates and standardizes post-trade “downstream” processes (such as payments and notional adjustments) of the life of each contract**
 - ✓ **Processing flows automatically from the electronic confirmation environment**



Trade Information Warehouse Evolution – 2007 Update

- **Release 1 (November 2006)**

- Warehouse establishment and contract maintenance for “gold” trades
- Backloading effort completed for dealers and commenced for buy-side clients

- **Release 2.0 (February 2007)**

- Payment calculations for “gold” CDS and CDX trades, comparison with cash flow submission to the Payments Reconciliation (PayRec) service
- Payment calculations represents approximately 90% of all “gold” records. 2008 in-flight initiatives will aim to complete remaining 10% either through direct payment calculation processing or through integration with the PayRec services.

- **Release 2.3a/2.3 (July 2007/August 2007)**

- PayRec processing rule changes to provide a link overwrite when the PayRec submission is against a warehouse sourced record.
- Credit Events processing includes Adherence workflow to identify affected transactions, and substituted payment calculations once credit event protocol has closed and auction completed.

- **Release 3.0 (November 2007)**

- Central Settlement of payments generated by the Warehouse



Backloading existing portfolio to the Warehouse

Why Backload?

Backloading facilitates migration of the “current state” into the Warehouse, as of a bilaterally agreed “Backload Effective Date”

- Backloading to the warehouse ensures that the “current state” of the transaction is represented and maintained (gold record), thereby maintaining the “official legal record” of the trade
- Warehouse is most effective when all participants have fully backloaded their portfolio of trades to fully gain the benefits (e.g., payment calculations and central settlement)

Current state of backload initiative

- FED 20 dealer firms and first wave of buy-side clients have completed backload submissions. This represents approximately 1.5 million trade positions thus far.
- Continued effort to backload buy-side clients in 2008



Payment Calculations in the Warehouse

In February 2007, TIW launched payment calculations predominately for CDS and CDX, representing approximately 90% of the credit volume

Payment calculations produced for the following product types:

- CDS on Corporate and Sovereign entities
- Corporate and Emerging Market CDS Indices (CDX & iTraxx)
- CDS on Asset-Backed Index (ABX) and Commercial Mortgage-Backed Index (CMBX) – based on Markit data
- **CDS on Loans (LCDS) (April 4, 2008)**
- **CDS on Loan Index (LCDX)- (April 4, 2008)**

Product types not currently calculated by the warehouse are:

- CDS on ABS
- CDS on CMBS
- CDS on Index Tranche/ABX Tranche

** In-flight initiatives for 2008 are to make these products calculable through the warehouse or allow participants to submit and match calculations via PayRec into the warehouse and include in central settlement.*

Integrating TIW with CLS for central settlement

In partnership with CLS Bank International, TIW was able to achieve central settlement of these payment calculations.

- Generation of payments for eligible “gold” trades and the calculation of resulting payment obligations (net amounts) are performed by DTCC, and then transmitted to CLS**
- Transfer of funds between parties occur within CLS, where Deriv/SERV settlement obligations are further multi-laterally netted with other payments within CLS**
- At CLS, settlement is transacted in central bank funds, resulting in payment finality and irrevocability**
- Reporting of payment obligations and results of the settlement process are provided to Deriv/SERV participants. Information is also provided to their CLS Settlement Agents if authorized by the Deriv/SERV participant**



Settlement Process: Sequence of Events

- 1. DTCC continuous netting of TIW-generated payments and reporting of net and gross payment information to participants through the real-time GUI and reports**
- 2. DTCC lock down of net payment amounts in accordance with established cutoff times**
- 3. DTCC creation of Payment Instructions for CLS-eligible accounts**
- 4. DTCC transmission of Payment Instructions to CLS**
- 5. CLS reporting of Deriv/SERV settlement amounts to Settlement Members that settle on behalf of Deriv/SERV participants**
- 6. Central settlement at CLS [actual funds transfers between parties through Settlement Agents]**
- 7. Reporting of settlement results by DTCC and CLS to TIW users and Settlement Members, respectively**



Update on other Services – Rates and Equities

- **Rates**

- Trade Confirmation service includes Rates products. Currently in planning/design phase of migrating these products to the warehouse.
- Implemented assignment processing for interest rate swaps and inflation swaps (Dec 6, 2007)

- **Equity**

- Deriv/SERV offers electronic matching for the following equity derivatives products: options, swaps, variance, and dividend swaps for all major regions including the Americas, Europe, Asia Ex-Japan, and Japan. In 2007, Deriv/SERV added all new “short form” equity derivative templates. We currently support all ISDA-published templates.
- Developed and initiated piloted with an initial dealer group and their key customers the MCA Xpress service for equity derivatives. This service enables parties to initiate and negotiate ISDA MCA’s on-line.
- * *In 2008, planning and design efforts will be underway for adding Rates and Equities to the Warehouse service.*



2008 Initiatives

- **Q1 2008**
 - **BAU Enhancements to confirmation and warehouse services.**
 - **Unbundle cluster dealers currently live with Central Settlement services**
 - **On-boarding of FED 20 dealers onto the Novation Consent platform**
 - **Identify buy-side requirements for participation in central settlement service**
- **Q2 2008**
 - **Expanding central settlement services to additional dealers**
 - **Build Successor Event processing (re-orgs, renames)**
 - **Novation Consent enhancements**
- **Q3 2008**
 - **Pay Rec 2 development - scope currently being defined.**
 - ✓ **A series of enhancements that will provide full coverage of the credit product for transactions that currently cannot be calculated by the warehouse.**
 - ✓ **Analyzing ability to introduce other asset classes into the PayRec service.**
- **Q4 2008**
 - **Extend warehouse to other asset classes (requirements to have been completed for 2009 development)**



What are the current benefits for Custodians?

The current service provided to custodians by Deriv/SERV is the Full Position Reconciliation file which allows custodians to reconcile asset managers trade portfolio against custodian's records.

- **With backloading focus in 2008 for buy-side clients, including asset managers, benefits of warehouse value-added services can be realized by custodians in the form of payment calculations and various reports produced by DTCC.**
- **Custodians could also receive a file from the warehouse to reconcile payment calculations for these transaction.**
- **Alternatively, since the warehouse record is the “legal record”, then custodians could use the Warehouse settlement reports (which identifies the gross cashflows associated to the net) and use the warehouse calculated amount for settlement.**
- **What's next? What other functionality can Deriv/SERV provide to assist custodians and asset managers in operation processing of derivative transactions?**



Q & A



Next Steps

- **Form a custodian working group**
 - **Identify custodians who would be interested in working with Deriv/SERV to evaluate the services currently provided and identify, what if any additional requirements would be required.**
- **Next meeting time**
- **AOB**

