STORME and CARME

White Paper by GARY KEANE

Sapient®

Improving the efficiency of the in-bound confirmation process with *Sapient's Storme and Carme* outsourced service.

OTC derivative confirmation: significant progress achieved towards automation

Substantial progress has been made by the banking industry towards the automation of post-trade control and processing activities, with electronic matching tools playing an important role in these achievements. It is a testament to the efforts made by the industry that 98% of credit derivatives are now processed electronically. Nevertheless, levels of automation still vary across asset classes: according to the most recent Markit Metric Quarterly Trend Report, some 70% of the major broker dealers' interest rate derivative volume is processed electronically, leaving another 30% to be confirmed manually. Levels of automation are even lower amongst equity derivatives – only 23% of deals are confirmed electronically.

but paper still persists

Despite financial authorities' diktats, complete automation may still be some way off. Regulatory attention has primarily focused on the major international OTC dealers and, as a result, Tier 2 banks and the buy-side still lag some way behind, remaining, in some cases, firmly wedded to paper-based processing. In addition, financial authorities have largely concentrated their efforts on bringing reform in three areas, namely interest rate, credit and equity derivatives. Considerably less attention has been paid to FX and commodities.

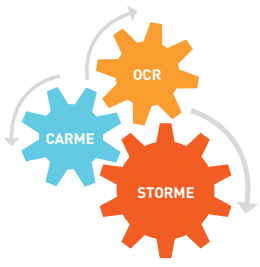
Clearly, the ultimate aim within the OTC derivatives arena is the automation of all confirmations. However, despite industry commitments to automation, a significant proportion of OTC contracts are still handled manually, an approach that appears likely to continue for at least the near future. The economic downturn has also had an impact in this respect: although tougher restrictions have been imposed by financial authorities in relation to the amount of time confirmations can remain outstanding, these have coincided with a significant drop in the volume of OTC trades. Lower trade volumes have enabled banks to comply with stricter controls using current levels of back office staffing and traditional manual methods, however, once trade levels rise, it is questionable whether firms will be able to meet regulatory requirements without either hiring more costly resources or introducing a greater degree of automation to back office processes.

Problem areas

Sapient has identified a number of areas within the confirmation process where manual methods predominate, these being indexing and matching of confirmations, affirmation (the agreement of key economic terms prior to confirmation execution), chasing (contacting counterparties to solicit outstanding documentation) and query management. As a result of continued reliance on manual processing in these areas, confirmations are often subject to delay, exposing firms to unnecessarily high levels of risk.

Let us turn to the indexing and matching of confirmations first. Although the approach and level of automation used differs from asset class to asset class, and from bank to bank, confirmations are usually received by operations' departments via fax, post or electronically in pdf or tif form. Confirmations are sifted out from amongst other mail, the relevant pages collated and indexed, and a corresponding trade identified in the bank's confirmation system. A reference number is appended and status assigned. The process is imperfect: faxes regularly go missing, while the use of sight verification can mean that incoming confirmations are often overlooked or misunderstood. Delays and failures result, which can be harmful, costly or, in instances where serious errors occur, damaging to a firm's reputation. The process is resource-intensive and expensive, a major consideration in today's economic environment.

Affirmation, chasing and query management are generally carried out using a combination of phone calls, e-mails and spreadsheet exchanges to liaise with counterparties. The processes are particularly manually intensive, occupying as many as four out of ten staff in banks' operations departments, a problem exacerbated by an absence of electronic solutions in this area. To make matters worse, the tasks involved are notoriously tedious and repetitive, and so are often farmed out to staff in offshore locations. Here, errors tend to arise through lack of training or through failures to understand documentation correctly.



STORME AND CARME

In response to the challenges outlined above, Sapient has developed Storme (Straight Through Operational Reconciliation Matching Engine) and Carme (Chasing, Affirmation, Risk Mitigation Engine). These applications, offered as an outsourced service, and administered from Sapient's secure offshore and near-shore premises (Storme can also be administered on client-site, should that be required), introduce greater efficiency into the processing of in-bound confirmations of OTC vanilla derivatives.

What is Storme?

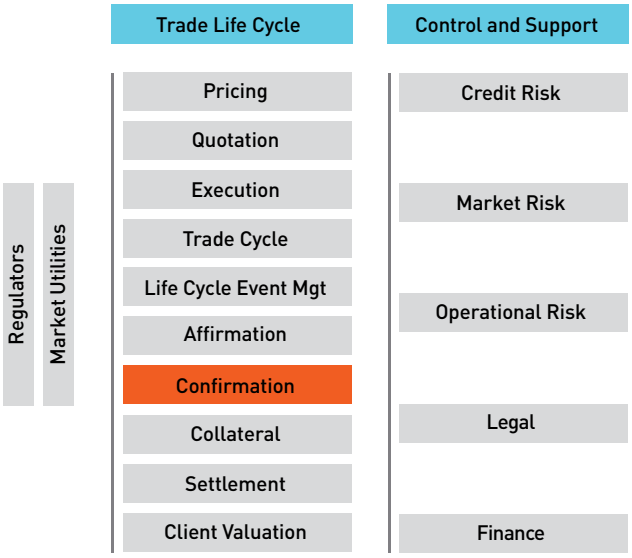
Matching engine Storme uses optical character recognition (OCR) technology to capture data from incoming paper confirmations. Although the investment banking industry has, to date, been somewhat sceptical of this new branch of technology, believing the data associated with OTC derivative contracts to be too great in volume and complexity to be handled by OCR systems, Storme is, in fact, ideally suited to capturing and manipulating the large amounts of information involved with OTC agreements. Having scanned an incoming confirmation, Storme converts the information into a number of fields, comparing the results with records held in the host bank's confirmation tracking system. Storme then updates the confirmation system with the result of the matching process. Any ineligible items highlighted during the course of this procedure are checked by Sapient's process administrators for accuracy.

What are the benefits of using Storme?

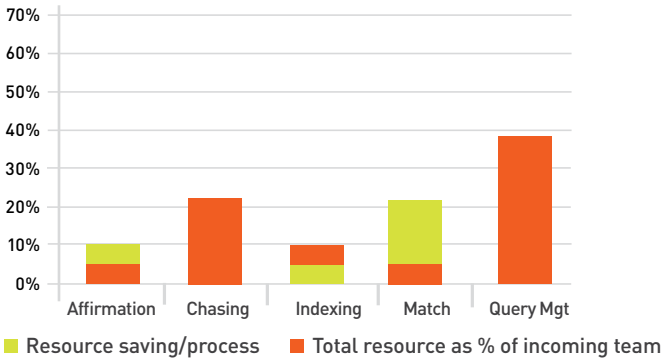
Storme offers valuable support to financial institutions by removing the need for sight verification of confirmations. This has extremely important risk management implications as a significant cause of oversights and errors is removed. Storme also eliminates the majority of paper from confirmation matching, preventing process "log jams" from occurring and delays arising. Storme is volume-insensitive, allowing peaks in confirmation volumes to be handled without taking on extra resources. In addition, Storme reduces the number of back office resources generally required, for example, it removes the need to devote staff to the manual scanning and indexing of incoming documents or to laboriously matching up in-bound confirmations with those stored on record. As a result, the adoption of Storme can create up to 30% in resource savings.

Figure 1: Key Elements of the Derivatives Operating Model and specific function: Confirmation

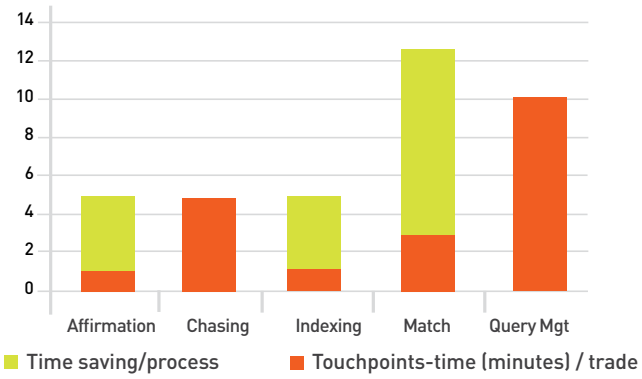
Key Elements of Derivatives Operating Model



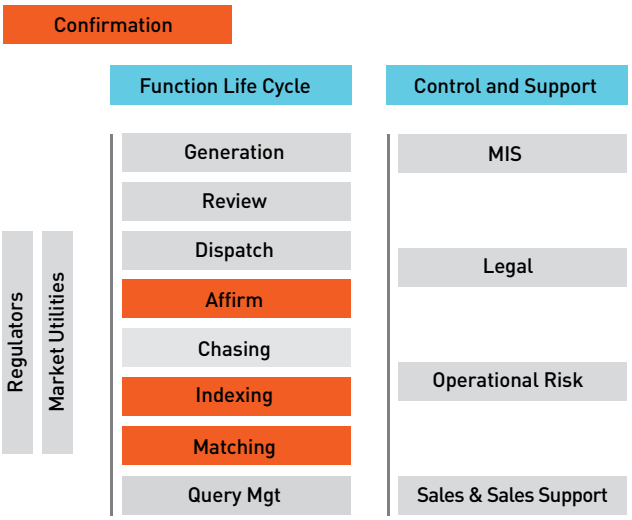
Avg. Incoming Process Resource By Function vs. Resources Saved Using **STORME**

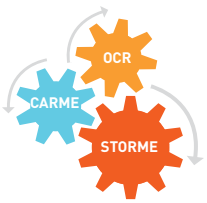


Avg. Time Spent On Incoming Processes vs Avg. Time Saving Using **STORME**



Key Elements of Specific Function: Confirmation





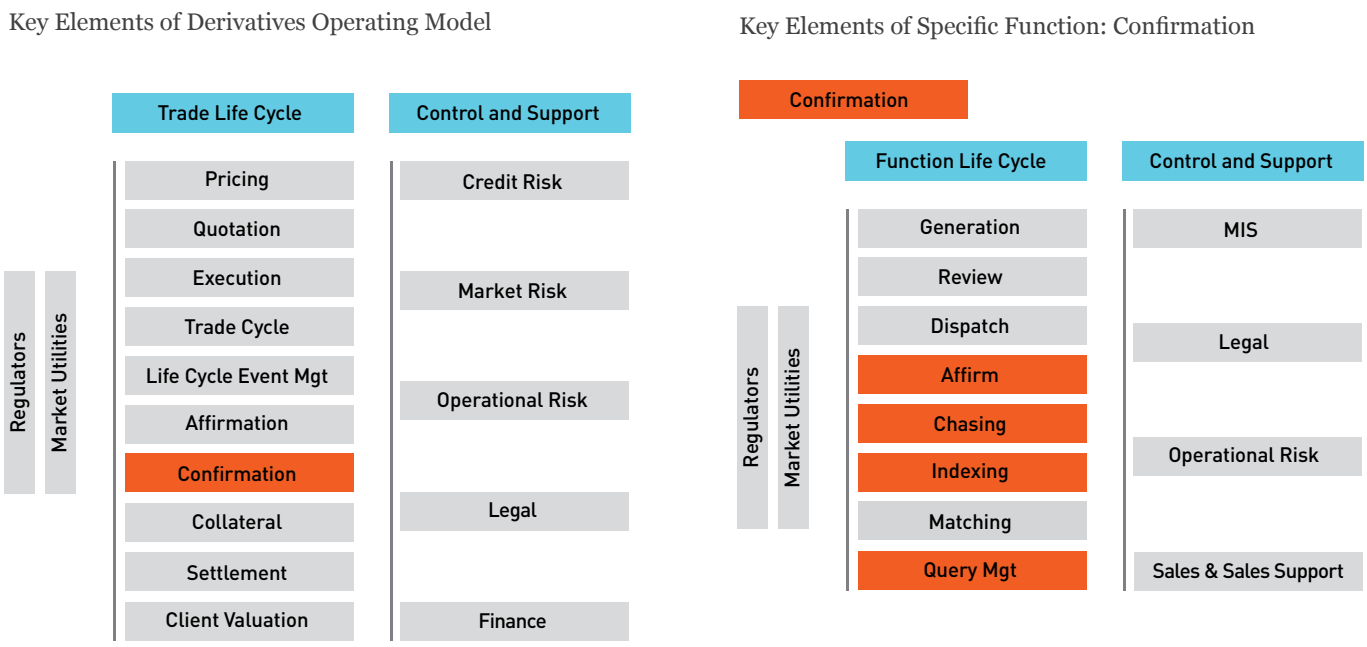
Overall, Storme offers a competitive alternative to resource-intensive manual processing, replacing it with known costs that can be planned and budgeted. There is no need to integrate the application into existing IT infrastructure, making it simple and inexpensive to get started. Both the Storme and Carme engines are encrypted, secure and robust, with fully supported recovery and audit capabilities. Storme can be customised to suit a bank's individual requirements, works across all asset classes, and can be used alone or in tandem with Carme.

What is Carme?

Carme provides an electronic alternative to the manual handling of affirmation, chasing and query management. Using Carme, both counterparties upload, via an excel spreadsheet, the information they have regarding the terms of the OTC agreements to be affirmed and chased. There are no particular formatting requirements, making the submission of data extremely easy. The Carme engine formats the data and populates a standardised template with it, performing a comparison exercise and providing both parties with a set of mirrored reports.

The reports display the post-reconciliation status of each trade, both at summary and detailed level. The age of each trade is indicated – commencing from the moment the transaction is uploaded to the system – ensuring a clear record and preventing the possibility of disputes occurring over the ageing of trades. Furthermore, a management dashboard provides an overview of progress, indicating how both parties are performing and making it easy to identify slow response times. The metrics have the merit of being provided by an impartial third party, while powerful escalation procedures ensure that when "road blocks" do occur, they can be rapidly resolved. Finally, the system acts as a useful tool for banks looking to weed out poor performance within their own operations departments.

Figure 2: Key Elements of Derivatives Operating Model and specific function : Confirmation

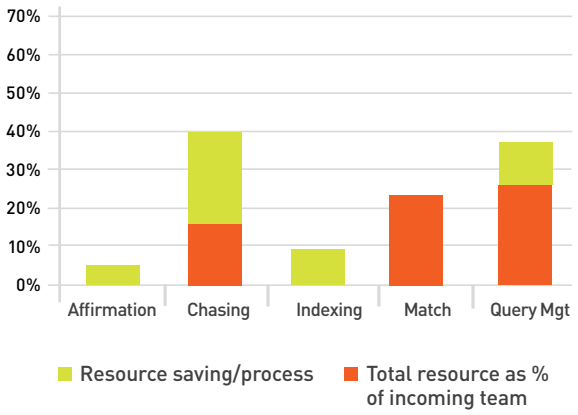


Carme has a number of other helpful functions, for example, the system can be used to indicate potential matches between counterparties' outstanding trades, even though reference numbers are lacking. The engine compares data from both counterparties – an accuracy rating can also be set – highlighting possible matches.

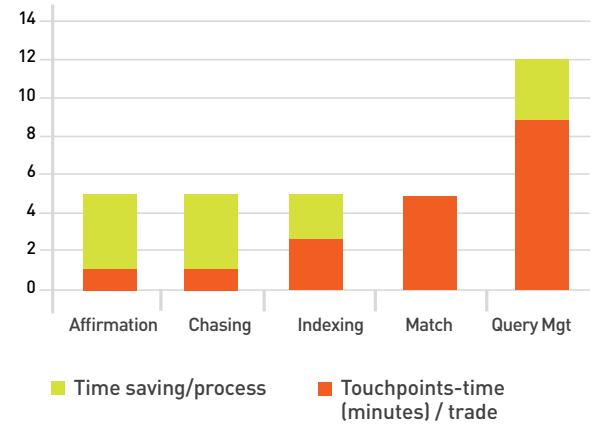
What are the benefits of using Carme?

Carme performs an important risk management function, ensuring that trades are affirmed in a timely fashion, cutting down delays caused by manual processing and reducing exposure to risk. Carme also improves reporting and assists firms to meet the regulatory standards attached to the confirmation of OTC trades. In addition, the system enables the generation of timely, accurate management information.

Avg. Incoming Process Resource By Function vs. Resources Saved Using CARME



Avg. Time Spent On Incoming Processes vs Avg. Time Saving Using CARME



Significantly, Carme generates productivity rises of between 25% and 50%, enabling financial institutions to drive down operating overheads. Requiring no software licences, expensive integration or development work, Carme is a highly cost-effective solution, providing an elegantly simple way forward in an area currently devoid of automated solutions.

Finally, Carme reduces the manual hardship associated with affirmation, chasing and query management, removing the need for back office staff to perform the same dreary and demoralising tasks, over and over again. This, in turn, frees back office personnel up to perform more valuable tasks or to be given extra training. Staff motivation is improved, also helping to reduce levels of "churn".

THE AUTHOR

Gary Keane
Sr. Manager TRM Process Solutions, Sapient
gkeane@sapient.com

Sapient's Trading and Risk Management (TRM) Practice brings more than 15 years of applying business, technology and process experience to fully service trading and risk enterprises. Leveraging deep industry knowledge, global capabilities and a relentless drive toward innovation,Sapient partners with its TRM clients to improve their businesses, transform their operations, expand their client base and maximize profitability. The company's TRM clients include global investment banks, tier one hedge funds, buy-side firms, major oil and energy merchant companies and government entities.

Last year, Sapient acquired London-based Derivatives Consulting Group Limited (DCG), a leading provider of derivatives consulting and outsourcing services to investment banks, hedge funds, asset managers and commercial banking clients. With this acquisition, Sapient now has a globally integrated service in derivatives processing within its TRM Practice.

www.sapient.com\trm