Trade Finance

Processing Letters of Credit in a Paperless, Secure, and Legal-Grade Environment

Introduction

With the advent of the Internet, banks and other Financial Institutions are rethinking their corporate services strategy. The Internet opens a new channel for delivering services to corporate clients and helps these institutions remove cumbersome and expensive paper processes. Services such as Cash and Treasury Management, Trade Finance, and Payments delivered over public networks not only streamline a bank's internal processes, but also increase the ratio of fee-based revenue to more traditional loans-based revenue.

Let us take a closer look at one of these corporate services – Trade Finance.

The term 'trade finance' predominantly refers to a bank line of business that is associated with cross-border trading activity. The range of bank products and services offered to importers and exporters varies widely in range depending upon the complexity of the trading milieu. An important offering in most banks with a trade finance line of business is a Letter of Credit (LoC).

In the world of international trade, importers and exporters frequently dispute the details of how goods and payment are delivered. Should the seller ship the merchandise before receipt of payment? Or should the buyer pay the seller prior to shipment. This dilemma is resolved through a financial vehicle called a LoC. A LoC is a financial instrument used to facilitate settlement of funds in a manner that reduces financial, geographic, economic, and political risk for both the buyer and the seller. It is a written undertaking by a bank (issuing bank) given to the seller (beneficiary) at the request, and on the instructions of the buyer (applicant) to pay at sight, or at a determinable future date, up to a stated sum of money, within a prescribed time limit and against stipulated documents.

The issuing bank bears risk by putting out its credit and good name for the buyer's sake. The buyer has thus transferred risk to its bank. The seller's risk is reduced considerably also because the seller relies on a bank for payment, as opposed to the willingness or the ability of the buyer to pay. It is noteworthy that payment is ensured when and only when all the terms and conditions of the LoC have been fulfilled. In today's global economy, LoCs are an indispensable financial tool.

However, today's manual, paper-based LoC processes are grossly inefficient. Banks are beginning to recognize that financial cryptography, and other technologies in the areas of transaction security and trust, can revolutionize the way services are provided to their corporate customers.

Typical LoC Process

The typical process can be described succinctly in the following steps.

1. The buyer and seller agree on terms of sale, including: price, transportation details, possible period of credit, etc.

2. The buyer prepares and presents a LoC application to its bank. The bank typically evaluates the buyer's creditworthiness and may require a cash cover or other collateral before it issues a LoC.

3. The issuing bank issues the LoC, and sends it to the advising bank either by airmail, or more commonly via electronic means such as telex or S.W.I.F.T message.

4. The advising bank checks the authenticity of the LoC using signature books or test codes and then notifies the seller.

5. The beneficiary now reconciles this LoC with its commercial agreement with the buyer.

6. The seller ships the goods and then assembles the necessary documents (invoice, various freight documents) called for by the LoC. Before presenting these documents to the advising bank, the seller carefully checks them for possible discrepancies with the LoC and makes possible corrections.

7. The seller presents these documents to the advising bank.

8. The advising bank checks the documents against the LoC and if they found to be compliant, the bank pays the seller.

9. The advising bank forwards these documents to the issuing bank.

10. The issuing bank now checks these documents and if finds them to be compliant, it reimburses the advising bank.

11. The issuing bank debits the buyer and releases the documents to the buyer so that the buyer can claim the goods bought from the freight carrier.

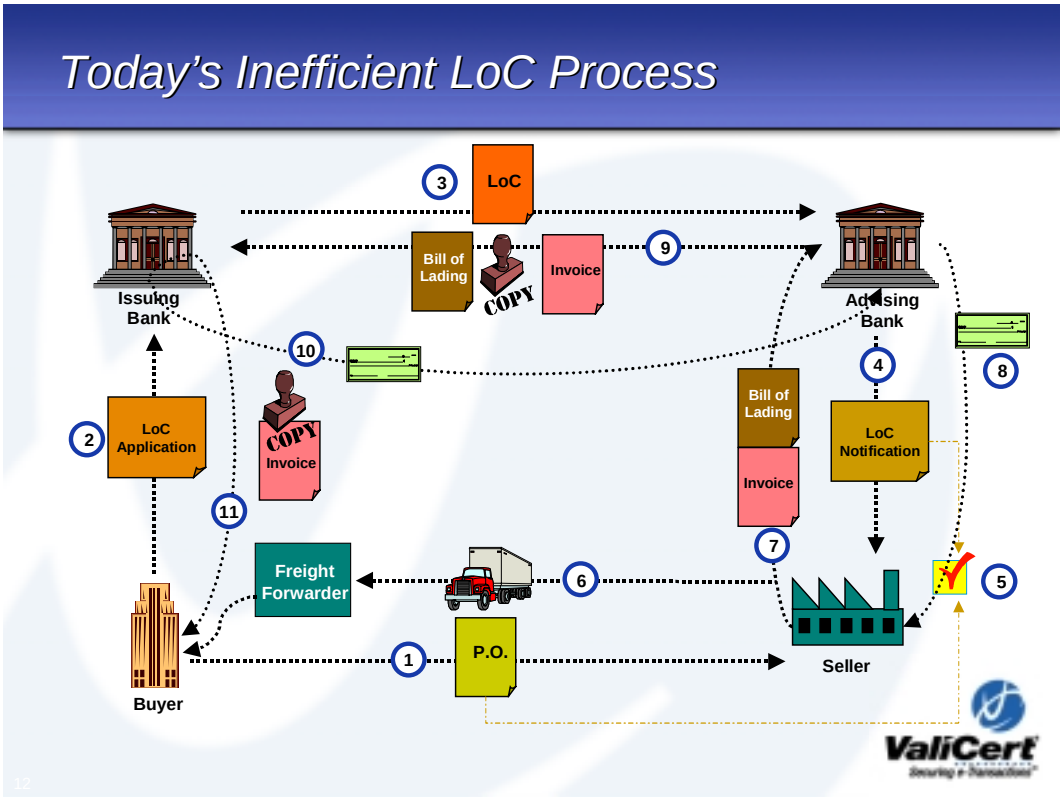

Figure 1. Schematic flow of a typical Letter of Credit process

LoCs - A Myriad of Types

The scenario described above represents the flow for a commonly used LoC called an **irrevocable credit** LoC, wherein both the buyer and seller must agree on terms and conditions before amendments or cancellations are made. Irrevocable LoCs are further classified into the **unconfirmed** and the **confirmed** type. In the former case, only the issuing bank is responsible for payment; the advising bank is obliged to credit the seller only after receiving funds from the issuing bank. Clearly, the advising bank incurs no risk since it acts merely as an intermediary.

In the case of a confirmed credit LoC, the advising bank layers its guarantee on top of that of the issuing bank. In other words, the seller's bank is obliged to pay if the buyer's bank defaults. In situations where the seller is unfamiliar with the issuing bank's ability to guarantee payment, the seller may insist on a confirmed credit LoC. This mechanism is used when trade is conducted in a high-risk area where there is fear of political, social, or economic unrest and instability. It is more expensive for the exporter but it mitigates the exporter's risk of non-payment. In more

complex trading situations, the corresponding LoC process matches that complexity, and can be considerably more involved. Special types of LoCs include

Transferable LoCs

This allows traders or middlemen to transfer all or part of the proceeds of the original LoC to one or more secondary beneficiaries.

Back-to-Back LoCs

This is a mechanism wherein a new credit is opened on the basis of an existing, non-transferable credit. It is also employed by traders to make payment to secondary beneficiaries by using the first LoC as collateral for a second LoC.

Deferred Payment LoCs

Here, the buyer agrees to pay the issuing bank after a fixed period of time. In other words, the buyer gets a grace period for payment.

Revolving LoCs

With a Revolving Letter of Credit, the issuing commits to restore the credit to the original amount once it has been used or drawn down. The credit also states the number of times it can be used and the period of validity. The credit can be cumulative, meaning sums can be added to the next installment, or non-cumulative, meaning partial amounts expire if not used in the time stated.

Standby LoCs

Such credits are basically a payment or performance guarantee used primarily in the United States. They are often called *non-performing* letters of credit because they are only used as a backup payment if the collection on primary payment method is past due. Standby letters of credit can be used, for example, to guarantee repayment of loans, fulfillment by subcontractors, and securing the payment for goods delivered by third parties. The beneficiary to a standby letter of credit can draw from it on demand, so the buyer assumes added risk.

Red Clause LoCs

Red Clause Letters of Credit are used to provide the seller with some funds prior to shipment to finance production of the goods. The credit may

be advanced in part or in full, and the buyer's bank finances the advance payment. The buyer, in essence, extends financing to the seller and incurs ultimate risk for all advanced credits.

The intricacies associated with the Letter of Credit process go hand-in-hand with the specifics of the trading scenario *vis a vis* the level of risk the seller and buyer and their respective banks are willing to bear.

The LoC Problem – Bank's Perspective

It is widely acknowledged that the trade finance business is quite different from other lines of businesses; unlike treasury/cash management, commercial/retail lending or payments, trade finance does *not* deal directly with funds. The bank's position of strength both financially and as a trusted third party places it in a unique position to be able to mediate trade across borders by providing a variety of services. However, trade finance is a document management business wherein the bank's role is to act as a trusted third party in fulfilling contractual agreements between exporters and importers. Careful and detailed documentation and management is crucial to the bank's success in this line of business. To provide legitimacy to the claim that trade finance is indeed a document management business, one need only list the number of forms required in a typical transaction between an importer and exporter:

Exporter Folder	Importer Folder
Basic Order Agreement	Basic Order Agreement
Request for Quotation	Request for Quotation
Proforma Invoice	Purchase Order
LoC Instruction	LoC Application
Shipping Order	Documentary LoC Form
Packing List	
Invoice	
Certificate of Origin	
Inspection Certificate	**Additional Bank Forms**
Shipping Registry Certificate	Assignment of Proceeds
Beneficiary Certificate	Transfer of LoC
Document Draft	LoC Security Agreement
Bill of Lading	Drafts Purchase Agreement
Airbill	
Negotiation Document	

Table 1. A list of LoC forms required of trading partners and banks

In banks today, most trade finance operations are manual and paper-based. Given the complexity of trading scenarios and associated documentation, these manual and paper-based operations are prone to error and are quite inefficient. It is estimated that the cost to process a single LoC is about $400 and the traditional fee structures generate razor-thin profit margins, if any at all. The cost of processing trade documentation is 7% of the total world trade value – more than $300 billion annually, and this number is growing. Indeed, many small and medium-sized banks do not enjoy the economies of scale and global reach that bigger banks do; they find the trade finance line of business unprofitable and are being forced out of it.

The trade finance line of business presents a three-fold problem to banks:

Low profit margins
Poor customer service
Mail float delays

Inefficiencies abound in the paper-intensive, manual, and error-prone processes, both at the front-end as well as back-end, and are the scourge of today's trade finance practice in banks. These manual processes can drain the bank's resources. It is well worth noting that trade departments in advising banks are extremely picky when it comes to discrepancies associated with LoCs. It is critical that advising banks comply strictly with various rules and regulations (imposed by Uniform Customs and Practices for Documentary Credits, the Uniform Commercial Code, ISP98, and ICC Uniform Rules for Bank-to-Bank Reimbursements URR525) in order to get reimbursed by the issuing bank. This clearly impacts the bottom-line of this line of business; profit margins are consistently below targets. But that is not all.

The lack of precision inherent in these trade finance processes causes banks to deliver lower quality customer service. Relationship managers in banks are judged by their ability to retain and satisfy the bank's corporate customers; poor customer service can have extremely adverse effects on a bank's business, not to mention its impact on employees' well being. The cumbersome, error-prone, paper-based tasks associated with LoC processing inevitably lead to inordinate delays. Consider the advising bank's position after they have credited the seller's account. They send paperwork to the issuing bank that in turn has to check these documents thoroughly before sending payment. Mail float delays can cost the advising bank 5 to 15 days of interest income.

The LoC Problem – Enterprise's Perspective

From an exporter's viewpoint the problem is quite simple. "I have shipped the goods. How long do I have to wait, and how much trouble will I have to go through before I get paid?" Conversely, the importer worries about the elapse of time before the goods come into its possession.

For an exporter, the LoC is the financial instrument of choice for it mitigates non-payment risk associated cross-border trade. It also enables the exporter to have more control over payment. If the LoC process were picture-perfect, the seller would get paid as soon as the buyer receives the merchandise. However, many of the documents required by the exporter has to come from the freight forwarder, who has little or no initiative to issue documents which are discrepancy-free. The reason is simple. Once the goods are delivered, freight forwarders are paid by the buyers. The advising bank will not credit the exporter's account unless the documents presented are perfectly in order. Even seemingly inconsequential discrepancies like an incorrectly spelled name or address can tie-up payment for thousands of dollars worth of merchandise.

The rejection rate of discrepant LoCs is about 70%. The onus of correcting and resubmitting documents falls on the exporter; it is a Herculean effort and it is not the core competency of the exporter. While the seller may be an expert in manufacturing the goods he has shipped, he is certainly not an expert in trade banking. Obtaining payment for goods shipped can drain an enterprise's resources for days if not weeks. This job requires time, effort, and specialized knowledge and expertise. In summary, consistent payment delays for exported merchandise leads to

> Competitive Disadvantage – if the competition manages to obtain payment sooner, they can funnel to those funds sooner for mission-critical business activities. Or just earn interest.
> Draining of Resources – the enterprise's time and effort is directed toward getting payment for shipped goods as opposed to other productive and mission-critical tasks.
> Additional Bank Charges – the advising bank charges a fee for each LoC discrepancy.

The importer's problem is also quite simple. The importer may be a manufacturer, for example, waiting for raw material from overseas to keep her production line moving at a certain rate. Any delay in receipt will adversely impact her ability to manufacture the product to keep up with demand. Consider that the issuing bank has to process the buyer's LoC application and send it

to the advising bank, which then notifies the seller before goods can be shipped. Delays in this process can paralyze the buyer and put her at a severe competitive disadvantage.

Technology Trends in Trade Finance

Historically, banks and other specialized trade houses have been trusted facilitators of international trade. Their advantages have been global information and operational networks, robust risk management solutions, and limited competition. These advantages led to complacency and a lack of technological innovation resulting in the inefficient, manual trade finance practices of today. However, increased competition and the entry of independent software vendors are forcing banks to reevaluate their strategies. At least the bigger banks are willing to invest in future technology and expedite automation efforts. According to TowerGroup, annual technology spending in the US in 2000 is estimated to be about $270 million, while worldwide the figure is more three times higher at almost a $1 billion and growing at 4.8% annually. This growth is depicted in Figure 2a. The breakdown of this spending is shown in Figure 2b.

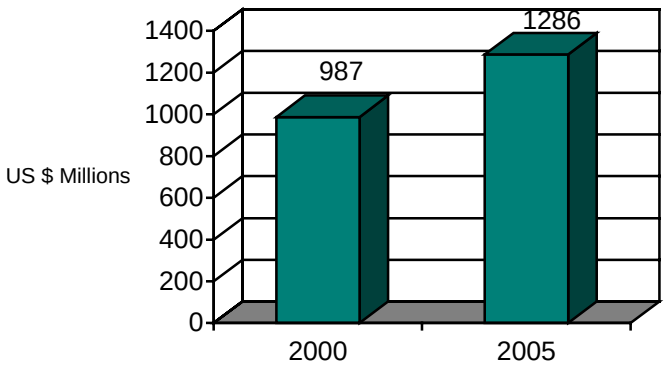

Figure 2a. Worldwide IT spending on trade finance (Source: TowerGroup)

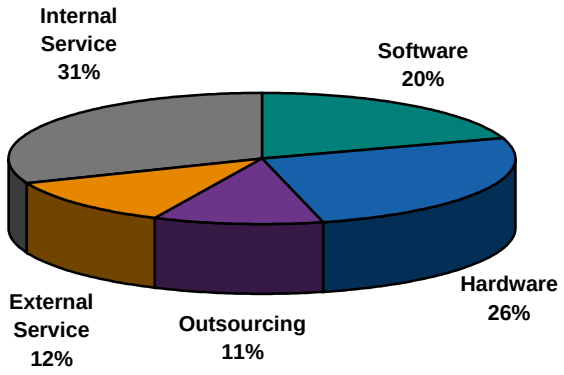

Figure 2b. Trade finance spending by type (Source: TowerGroup)

Like any information management system, a trade finance system should be built around a central data repository, which stores all information pertinent to the trade. Trade finance is, after all, a document management business and technology could conceivably be used to alleviate the costs associated with processing LoCs. However, specific terms of contracts can vary widely depending upon the nature of the transaction, the nature of goods traded, and the complexity of local trade laws. This explains why automation of document generation has been limited.

For legal and security reasons, documents associated with LoCs are stored as images, rather than as text files. Advances in imaging technologies and third party trade finance solutions that leverage these innovations are being used to cut costs. This is especially true with the availability of public networks and cheaper, high-performance data transport mechanisms. The involvement of different groups of people in a typical Letter of Credit transaction process necessitates systems to incorporate workflow capabilities including queuing and automatic document generation. Messaging networks such as telex, fax, and the Society for Worldwide Interbank Financial Telecommunication (S.W.I.F.T) are the primary networks for transmitting issuance notices, confirmations, and advices. TowerGroup estimates that more than 80% of total trade finance messages transmitted in 1997 were via S.W.I.F.T. It also believes that the increasing use of defined messaging standards bodes well for streamlining trade finance processes and that is a critical aspect of in automating trade finance activities. Robust trade finance solutions must have the ability to interface with the bank's core systems, it's management and compliance reporting system, and external payment and messaging systems.

Enter Bolero.net and TradeCard. These are some of the more prominent examples of technology initiatives in global trade, the focal point of which is automated document generation and transmittal.

Bolero.net is a neutral, global platform owned jointly by S.W.I.F.T, a bank-owned cooperative, and the Through Transport Club, which provides insurance to a multitude of ports and terminals, and two-thirds of the global container fleet. The Bolero initiative addresses a glaring lacuna in the area of trade finance automation: the issue of security and authentication, by providing a secure service for the exchange of documentation supported by strong authentication and audit trails. The development of global e-business received a major boost as Bolero.net and Identrus announced their joint co-operation late in 2000. Identrus is a global network of Financial Institutions; it provides a legal and technical framework of standards that enables banks to serve their business customers as trusted third parties for B2B e-commerce transactions.

TradeCard is an e-commerce solution, which facilitates global trade transactions by providing compliance or collection services to importers and exporters. Not only do they enable contract negotiations, they also manage financial settlement by linking to the traders' banks. It is an alternative financial settlement mechanism that does not, however, offer the financial liability offered by a more traditional LoC. The primary shareholders of TradeCard are E.M. Warburg, Pincus & Co, GE Information Systems, Marsh and McLennan, and a non-profit organization, World Trade Center Association.

It is clear that trade finance has grown complex. No stakeholder wants to solve problems alone – consortia must drive standards, technology partners and independent solution providers will then provide appropriate pieces of the puzzle to help the banks and enterprises streamline processes.

ValiCert Offerings Facilitate Secure and Trusted Document Management

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The exchange of official and legal trade documents is a sensitive process. The bill of lading, for example, is effectively a transferable title of ownership. Security and trust are critical issues when it comes to electronic transmission of such important and sensitive documents. These trust elements may be classified as

Authentication & Authorization – verifying identities of sending and receiving parties.
Privacy – preventing others from eavesdropping on confidential communications.
Integrity – ensuring that the information is not altered in transit.
Non-Repudiation – providing integrity and authentication that is legal-grade, so it can stand in a court of law.

ValiCert is a leading player in the e-transaction security market, and offers products and services that address precisely these trust issues. The ValiCert Document Authority™ enables secure and legal-grade document sharing, storage, and exchange over public networks. ValiCert's technology and practices statements, coupled with the legislative activity around digital signatures in various countries (in the US, and the E-SIGN law went into effect in October 2000) ensure that the audit trails generated by Document Authority will provide proof assurances in the event of disputes.

ValiCert Document Authority leverages other ValiCert products - ValiCert Enterprise VA Suite™, a high-performance, scalable digital certificate validation solution, ValiCert Digital Receipts Solutions™, a secure proof-management system that includes digital notarization and vaulting of transaction confirmations, and ValiCert SecureTransport™, an enterprise-class, secure file transfer product that enables transport of valuable or sensitive information in a confidential, reliable and guaranteed manner. Besides being available as products, these offerings can be hosted either by ValiCert in their secure data center as the ValiCert AssuredTrust Service™, or by one of ValiCert's worldwide affiliates.

The ValiCert Document Authority has robust built-in security features. These features, coupled with its sophisticated access control make Document Authority an ideal solution for secure document messaging and archival. Even large files, such as images in LoC applications, can be transported with ease by using SecureTransport in conjunction with Document Authority.

ValiCert infrastructure and application products and services, together with its associations with Identrus and Bolero.net, place it in a unique position to secure and streamline trade processes. The following schematic is a high-level architectural depiction of a streamlined LoC process.

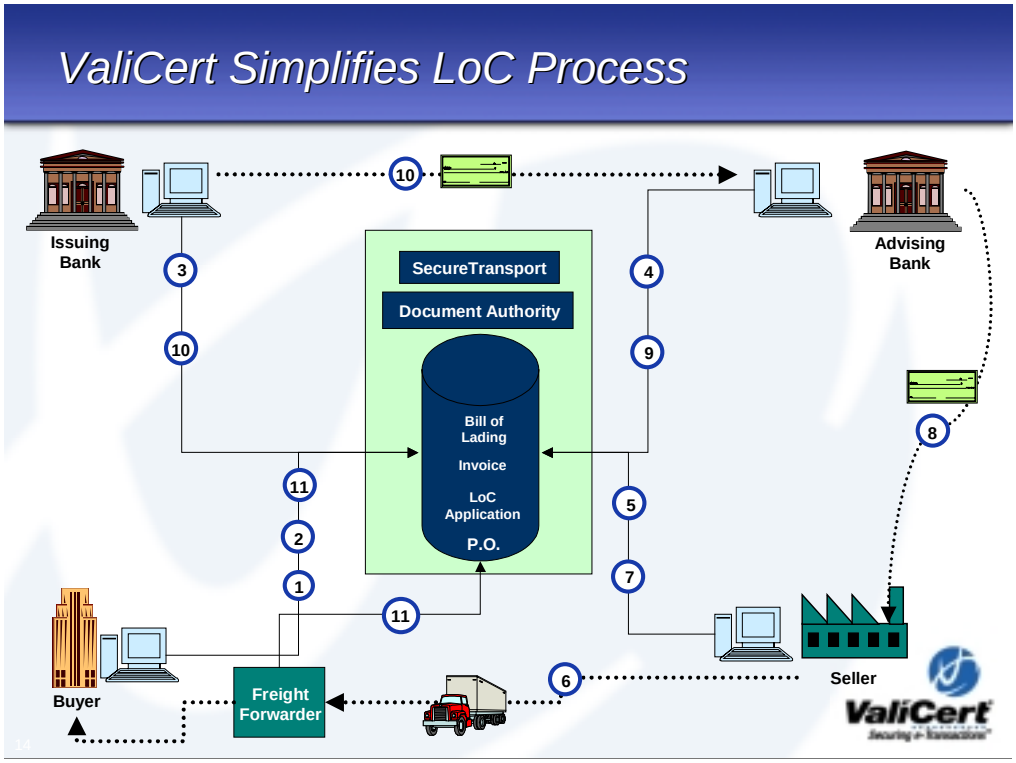

Figure 3. A streamlined LoC process flow

Banks and other specialized trade houses face intense competition and particular challenges in determining how to approach this transforming market in light of shifting customer requirements.

Will traditional trade facilitators champion technology and other innovation in order to remain the primary providers of trade solutions? Or will the new entrants be allowed to wrest business away from the banks? Simply put, banks and other trade houses must decide if they wish to lead, follow, or exit the trade facilitation business.

If you are an exporter or an importer, wouldn't you like a Letter of Credit to be processed in 4 days as opposed to 15?

ValiCert can help.

For more information regarding ValiCert's e-transaction security solutions, and how ValiCert delivers Professional and other Software and Applications Integration Services, visit our website at www.valicert.com or call 650.567.5400