

# A Bespoke Approach to Personal Digital Signatures

by Valérie Sainsaulieu, Head of Treasury Control, Lafarge

In 2009, TMI's SWIFT Connectivity Guide featured an article by Valérie Sainsaulieu about Lafarge's SWIFT connectivity project. Since then, treasury has rolled out SWIFT connectivity across 10 countries, using Kyriba and Datalog's CashPooler systems. With 80 signatories across the banks to which the company is connected through SWIFT, Lafarge wanted to find an automated and secure means of digitally signing payment instructions that could be used across all the company's banks.

## Corporate treasury at Lafarge

Corporate treasury at Lafarge acts as an in-house bank to the group and has centralised its key treasury functions (cash management, financing and financial risk management) as far as possible with 20 people located in Paris and Brussels. In addition, there is a treasury function in each of the main subsidiaries, and country treasurers have close links with corporate treasury. The treasury is a centre of expertise for the group, publishing policy, guidelines and financial best practices. It assists and supports subsidiaries in all treasury related issues where appropriate. All major external financing is conducted by Lafarge SA, which then finances group companies on an intercompany basis. Borrowings in local currency and/or with local lenders are performed directly at country level supported by corporate treasury.

We conduct cash management centrally whenever feasible, with local dedicated cash pools in France, the UK, the US and elsewhere. We have a pan-European cash pool for most European countries, and a multi-currency cash pool for all our main currencies. In total, we work centrally with around 10 international cash management banks, with some 200 accounts. To date, we have not centralised cash management on a daily basis in Asia, Africa, Middle East or South America. In these regions, corporate treasury manages cash transfers and short- to medium-term financing via intercompany loans. Corporate treasury is also the primary counterparty for the hedging requirements of the business units. We combine exposures across the business and conduct external hedging transactions, and then perform back-to-back intercompany hedges.

## Key Points

- Lafarge's SWIFT connectivity project was described in an article in 2009 in TMI's SWIFT Connectivity Guide; since then the company has rolled out the system across 10 countries
- Lafarge then wanted to find an automated and secure means of digitally signing payment instructions across all its banks
- The company chose 3SKey, a multi-bank personal digital identity solution developed by SWIFT in partnership with the banking community
- The article describes Lafarge's experiences with 3SKey, its many benefits and a few challenges and drawbacks

## Background to SWIFT connectivity

In 2007, we made the decision to replace the existing fragmented treasury management and bank connectivity infrastructure in our subsidiaries with one cash and treasury management system across the group, for which we selected Kyriba and Cashpooler, and a single, bank-independent bank communication platform, SWIFT. We appointed BNP Paribas to provide a "service bureau", based on our previous experience of successful technology projects with the bank. We first implemented SWIFTNet for our entities in France, and then rolled out the project internationally. Initially, we introduced SWIFT MT formats for treasury payments, and we migrated to XML-based formats for supplier/payroll payments with a view to achieving greater standardisation.

We found that implementing standard systems and SWIFTNet connection resulted in a high level of acceptance and enthusiasm across the business, with considerable improvements in cash management, process efficiency and security.

## Leveraging SWIFT

Our SWIFT implementation project proved very successful, but one element we were lacking was the ability to add personal signatures to transactions and files, which we had previously been able to do for our entities in France. We therefore wanted to implement a consistent, transparent approach to transaction security across all our banks and all the countries in which we operated that would enable our 80 signatories across different locations to sign transactions digitally. The solution needed to be straightforward both to use and to implement, without demanding significant resources. We explored the use of 3SKey, a multi-bank personal digital identity solution developed by SWIFT, in partnership with the banking community who recognised its value in providing a very high level of encryption and authentication, and we decided to build 3SKey into our SWIFTNet processes.

As we were an early adopter of 3SKey, however, not all of our banks supported its personal signatory capabilities, and we did not want disparate solutions across banks or countries. We therefore decided to build our own, highly sophisticated upstream system (i.e., one that allowed transactions to be duly approved and signed before reaching SWIFTNet) based on Kyriba and CashPooler, to supplement the capabilities of 3SKey.

Transactions are authorised in Kyriba, according to our requirement for a clear segregation of duties between payment initiator and authoriser. Authorised encrypted transactions are then passed seamlessly to CashPooler, our payment factory system, at which point no-one is able to amend payment information.

## Outcomes to date

The project is still on-going, but the new solution offers some distinct advantages in addition to meeting our objective of achieving a simple, consistent approach to personal digital signatures on transactions globally. For example, we can audit the use of each key, and monitor which are still active. There are some challenges and drawbacks, however. We would prefer to use security keys issued by a third party, such as SWIFT, as opposed to the bank, and there are still some costs associated with this, although they are quite small. The keys have to be reset and replaced every three years, a process that needs to be carefully monitored, although there is the benefit that signatory information is kept up to date. Finally, once a key has been locked (for example, if a user has forgotten the password) it cannot be reset and a new key has to be issued.

In the future we will continue to extend our use of SWIFTNet into new territories, such as Canada, India and China and will also keep up

to date with new SWIFT developments, such as eBAM (electronic bank account management), and extend our use of 3SKey to personal digital signatures. However, as a consistent approach to security is essential to us, we will not migrate to this until it is supported by all of our banks in all the countries where we operate. ■

## About 3SKey

3SKey is a multi-bank personal digital identity solution for digitally signing transactions and files developed by SWIFT, in partnership with the banking community. The solution can be used on both the SWIFT network and proprietary networks or the internet, and allows corporates to sign financial messages and files sent to their banks using a single signing device. It also offers banks a cost-effective way to implement secure authentication on electronic banking services by using a shared, reliable and trusted Public Key Infrastructure (PKI).

3SKey can typically be deployed for the following:

- Bank security channels for the replacement of proprietary authentication/signing devices
- Multi-banked corporates that want to streamline signing process across applications and banks
- Banking communities that are looking for a market standard for personal signatures
- eBAM – SWIFT's new solution for electronic bank account management

## Benefits for corporates

- Multi-bank solution built on industry standards
- Security based on latest cryptographic technology
- Reduced complexity and cost by using single device and process

## Benefits for banks

- Interoperability without reliance on other banks
- Enhanced customer service
- Opportunity to reduce investment in proprietary solutions



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Head of Treasury Control, Lafarge

Valérie Sainsaulieu is Head of Treasury Control at Lafarge. In her current role, she is responsible for middle- and back-office related processes for money markets, FX, interest rate and commodity risks as well as for the design and implementation of the roll-out of the group's payment factory.

Prior to this position, she held various finance & control roles for 15 years with corporates such as Hachette, FedEx and Lyonnaise des Eaux.

Valérie studied business at ESCP Europe in Paris, France.

## Lafarge

Lafarge is a world leader in the manufacture of construction materials, with top-ranking global positions in cement, aggregates and concrete, all of which are essential to economic and social development. Lafarge has operations in 64 countries and a long-standing commitment to innovation and sustainable construction.

In 2011, the group generated revenues of €15.3bn for an EBITDA of €3.2 bn. The last few years have seen major developments, notably the acquisition of Orascom Cement in 2008. It has actively reduced its debt to €2bn (end of 2011) since the start of the financial and economic crisis.