The ‘true’ information revolution is only just emerging as technology strips away traditional product silos to provide a more integrated view.

When Peter Drucker wrote in October 1999, “The truly revolutionary impact of the information revolution is just beginning to be felt,” he recognized that its real impact was not in terms of information at all. Just as the Industrial Revolution in its first half-century merely mechanized the process of producing goods that had been there all along, so the Information Revolution, since the introduction of the first computers, has only improved processes that already existed.

The organization of enterprises into departments and divisions that engage in end-to-end processes, which is a consequence of the Industrial Revolution, has not substantially changed. The main impact of information technology so far has been enhancing existing processes, with tremendous savings in time and cost and similarly tremendous improvements in consistency and quality. But the underlying processes have not really changed at all.

Jack Welch of General Electric (GE) coined the phrase “The Boundaryless Organisation”. He believed, and has been proven correct, that GE would be much more effective if the cultural, geographical and organizational barriers that separated the employees become more permeable. He put emphasis on the boundaries’ ability to enable business, rather than get in its way.

In the next era of the information age, we will expect to have information from multiple parts of the enterprise at our fingertips, all integrated to suit our specific needs, instantly available, across geographies, time zones and organizational structures. In order to achieve that and to enable the information age to realize its full potential, we need to allow for what The Open Group calls “Boundaryless Information Flow”- a continuous secure stream of information seamlessly flowing within and among enterprises, across permeable boundaries.

**NO BOUNDARIES**

To achieve Boundaryless Information Flow, an organisation needs to put in place infrastructure services that bring data sources together and provide that information to those users and applications that need it. Creating the environment for integrated information has been a challenge. What were once regarded as necessary boundaries between the different stages in operational processes designed to achieve the benefits of specialisation, now represent silos delivering outmoded solutions, which do not allow for the sharing of information. Barriers at the business and technical levels must be broken down.

If we look at the application of the Boundaryless Information Flow concept at industry level, we can see some very encouraging signs: for example, supply chain management in the manufacturing industry, customer relationship management (CRM) in the services industry, or straight through processing (STP) in the financial services industry.

STP automates end-to-end processing of financial transactions from start to finish. It eliminates many of the boundaries that currently exist, leads to real risk mitigation and significant cost savings. By including applications, standards and best practices in its implementation, STP is moving the concept of Boundaryless Information Flow into the mainstream of finance.
STP can be divided into two distinct parts: firstly, enterprise application integration or internal STP, which focuses on integrating internal processes within the enterprise, and secondly, business-to-business application integration or external STP, which focuses on seamlessly connecting all external partners in the trading and settlement process. Many financial enterprises also use another STP component, business process management, to automate and integrate their varied corporate business processes.

**OPEN ARCHITECTURE**

STP reflects the industry’s growing need for higher accuracy with less human intervention, reduced trade cycle and access to trade information in real time; reduced operating costs based on elimination of redundant processes and manual activities; and the need for better connectivity among different entities of the trading cycle. The key prerequisite for achieving this is standards-based integration of applications.

In order to implement and achieve a truly seamless solution, financial enterprises need to start with an open architectural framework foundation capable of providing flexible support for open standards, on which the application architecture can be built. There are several technologies implementing open standards that could be used for integrating STP applications – one of the most promising approaches is based on Web Services.

Web Services not only support the development of new applications with value added capabilities, but also are well suited for leveraging investment in existing legacy systems. Since they utilize open standards, they enable easy integration and implementation of different applications and allow them to communicate securely across the internet. Web Services surpass the flexibility offered by today’s middleware.

Where are we now? Although the financial industry has made some strides towards reducing processing time and streamlining back office activities, there is still a lot to be accomplished.

“*What were once regarded as necessary boundaries between the different stages in operational processes designed to achieve the benefits of specialisation, now represent silos delivering outmoded solutions.*”

**ALL-ENCOMPASSING**

Full adoption of STP and standardized application integration such as Web Services represents significant progress in making Boundaryless Information Flow a reality in the financial services industry. This will help break down boundaries and liberate the information from the legacy systems that hold it so closely today, reducing operational costs and increasing overall effectiveness.

It is not the whole story, however. We still face challenges. For example, how to manage this information flow – the information we extract represents a huge amount of data. There is also the challenge of expanding information flow across different industries and partners who face very different issues and challenges.

But this should not be a deterrent. No one solution is perfect and all encompassing. We just need to set the right expectations, roll-up our sleeves, and work together to identify and develop the right set of standards. //