

Opportunities Provided by the B2(B2B) Approach from the Service Providers' Point Of View

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Abstract. In today's global environment, where millions of business transactions are completed every single day, 24 hours a day, 7 days a week, B2B interactions are forced to transcend common collaboration strategies. Businesses are becoming aware of the fact that B2B enterprise interoperability technologies represent the wave of the future, the new direction for business communication overcoming present communication barriers and offering cost-effective and prompt information flows that can be turned into business advantages. This paper was written by the FLUID-WIN project consortium in order to promote enterprise interoperability platforms within the manufacturing sector for SMEs that are interested in cross-border business interactions. We focus in particular on the integration of different domains along the supply chain: the establishment of a single communication platform, which integrates both logistic service providers and financial service providers into the supply chain network. Furthermore, we elaborate on ICT support provided to logistic and financial institutions within a common B2(B2B) platform.

Keywords: supply chain integration, logistic process management, B2B, enterprise interoperability, financial service provider, external service providers, integration, logistic service provider

Introduction

Logistic service providers (LSPs) and financial service providers (FSPs) are entities that offer services to supply networks – among others – in order to boost their competitiveness and help them achieve their business objectives. In the context presented here, which comes from the FLUID-WIN project [1], 'B2' refers to financial and logistic services, which are provided to existing 'B2B' manufacturing networks constituted of manufacturers (OEMs, "prime contractors") and their suppliers all over the world.

The state-of-the-art of the FLUID-WIN project is to integrate and to offer innovative ICT services to 'B2' service providers. More specifically, it aims to improve service providers' collaboration and business capabilities in mutual

partnerships and in dealing with their clients. This new way of attaching services to B2B manufacturing networks has been called “B2(B2B)” [2].

Cross-organizational Process Management

Currently, prevailing supply-chain communication systems are known in international spheres as the “connect once” idea where there is a one-to-many interface facilitating data exchange. However, the global trend points in the direction of electronic many-to-many interconnections among companies, a phenomenon which manifests itself in the pooling of corporate resources, capabilities, and information in order to achieve the desired objectives effectively, at low cost. The aim of interoperability platforms, which promote cross-organizational business processes, is to make the web an integral part of business. Furthermore, interoperability platforms seek to provide the means for partners to link their business processes regardless of the extent of their IT infrastructure. Thus, the main challenge for today’s service providers is to communicate with their clients and with one-another without having to install many costly and complex peer-to-peer systems on top of their existing communication infrastructures. This is the challenge taken on by interoperability platforms and, correspondingly, by FLUID-WIN.

FLUID-WIN: A Multi-domain-oriented Interoperability Platform

FLUID-WIN is an interoperability platform, which aims at extending business relationships between manufacturers and their service providers, as well as among the service providers themselves. Electronic communication is at the heart of FLUID-WIN, a low-cost delivery platform, which amplifies business cross-interfaces.

In the context of FLUID-WIN, different domain experts (manufacturing, logistic, financial) have come together in order to accommodate the specific needs of the three areas addressed, respectively the LSPs’, the FSPs’ and the clients’ business communication needs. Our aim was to integrate all three domains into one single platform without additional manual data recording and to ensure the availability of data and its usability in electronic format for all the players involved in the supply chain.

FLUID-WIN Competitive Advantage vis a vis other Platforms

While multiple B2B interoperability platforms have been developed to satisfy the current demand for frameworks able to accommodate interoperability business processes, FLUID-WIN has valuable strengths, which are worth highlighting. The major strength of the FLUID-WIN platform is the fact that it tends to the needs and wants of logistic and financial service providers in their collaboration with manufacturers (customers and suppliers in the supply chain), as well as with each

other. Prior to FLUID-WIN, FSPs and LSPs were seldom integrated into the electronic communication chain of the supply network. With FLUID-WIN though, the communication infrastructure is *customized to the needs of each cooperating party*. Its flexibility makes it possible for companies to continue using their infrastructures and still be able to connect to the interoperability platform without additional investments or infrastructural changes.

In general, within every multi-tier SCM system, service providers work with many suppliers and manufacturers that have many individual needs and even more operational schemes. With this in mind, FLUID-WIN provides easy integration and access to platform functionalities, regardless of the IT infrastructure possessed by the LSP or the FSP. The platform is able to draw on information collected from the partners' legacy systems through intelligent gateways (fig. 1). Thus, *all partners are equally integrated* into the platform and are able to communicate more effectively, while eliminating costs and errors derived from the use of manual data processing.

Large companies are able to invest huge amounts of money into integration projects with their suppliers, but many of them are reaching only strategic suppliers ("A and B"), and very rarely they do focus on integrating service providers. The FLUID-WIN platform is *open to everybody in the supply network*, independent from their role in the network and their IT background.

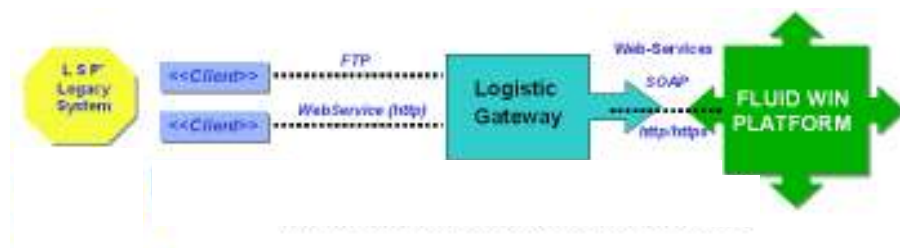


Fig. 1. Interoperability scheme of the LSP's legacy system and the FLUID-WIN Platform

FSP Motivation for Platform Integration

The advantages for Financial Service Providers of adhering to a system like FLUID-WIN need to be split into short-term, medium-term, and long-term benefits. *Short-term* benefits are as follows:

- Quicker transfer of invoices from clients for the utilisation of factoring or invoice discounting services.
- More trustworthy electronic communication thanks to the FSP gateway that will offer a one-to-many interface for several companies and clients of the factoring house or bank.
- Less time spent on the phone checking with the client on the status of particular transactions – the data will pass as seamlessly as possible.

- Simple procedure of how to confirm invoices with the final debtor in the case of factoring, whereby invoices are entered in a special user interface where they get confirmation.
- Documents are passed through a pre-check on the platform which eliminates the mistakes that would have been time-consuming for the FSP.
- More efficiency, less time spent overall on similar transactions and, therefore, more capacity to handle more transactions than before within a similar time-frame.

In the *medium term*, there are two major advantages:

- The risk of existing clients is lowered since, owing to the online window of information, the FSP can see the orders and deliveries passing through the system in real time, and therefore, be able to gauge the client's ongoing performance (good or bad).
- Information is delivered in real time and not historically. Mostly, banks ask for the final accounts of a previous year only after half of the following year has passed. This, of course, makes the data irrelevant. Thanks to FLUID-WIN, we have managed to bring business performance indicators in real time.

Finally, in the *long term*, two additional benefits can be identified:

- Banks and Financial service providers will have the opportunity to gain access to new clients through FLUID-WIN. The system connects whole B2B networks, made up of a high number of companies and organisations that trade in a semi-closed environment and, therefore, the FSP is able to pitch for more clients within the network.
- New financial services can be developed for the different networks on the platform. Moreover, FLUID-WIN could be the first step in providing a pool of finances or guarantees to a large number of SMEs within the manufacturing B2B network attached to the FLUID-WIN Platform.

LSP Motivation for Platform Integration

Zooming in on the *benefits ripped by logistic service providers* from participation in B2B platforms, we would like to point out the growing trend for logistic service outsourcing, which is approaching 75% EU-wide. European companies are constantly under pressure to increase their competitiveness, which implies decreasing per unit logistic costs, optimizing the transportation of goods, and being able to accurately forecast and plan capacity needs in advance.

Manufacturers in the initial EU-15 states are under pressure to cut costs, and are, therefore, looking to collaborate with suppliers from Former Eastern European (FEE) countries or from the Far East, where they can benefit from lower labour costs. Nevertheless, outsourcing implies that in addition to the basic unit costs, manufacturers also have to count in the product Total Cost of Ownership (TCO) when they decide to procure from the FEE or from the Far East. Factors such as longer distances and delivery run-time result in more complex logistic processes, higher cost, and also higher risks for the outsourcer. In order to combat these issues, it is common that manufacturers decide to outsource their logistic processes to LSPs. To communicate with their LSPs, manufacturers need a common communication

platform to ensure a high level of transparency, especially in cross-border cooperation.

LSPs, in turn, are feeling a tight squeeze to achieve a higher degree of B2B interoperability due, primarily, to *fluctuating global demand* for their services and for their logistic capacities, which is very hard to anticipate within the existing paradigm of ad-hoc communication networks.

In addition to cutting costs, the second major motivation for global logistic outsourcing is the demand coming from manufacturers and suppliers for *higher quality of services*, with ICT support for communication among all the supply network partners.

FLUID-WIN Functionalities Addressing FSPs

The functionalities provided by the FLUID-WIN approach in the financial arena are:

- Electronic Invoice Management: to electronically transmit, store and manage incoming as well as outgoing manufacturing and logistic invoices, as well as to handle credit notes.
- Financial service management: to ensure that the right information required by a specific financial service is grasped, collected, and transmitted from and to the relevant actors.
- Financial Service Status Monitoring: displaying the execution status of the required financial service.
- KPI for bank and factoring houses: factoring houses and banks can monitor their customers' (suppliers') status in terms of level of orders from the downstream manufacturer (backlog).
- Quality measurement of the FSP Service: to measure and provide indicators of the level and quality of fulfilment of financial services.

FLUID-WIN Functionalities Addressing LSPs

FLUID-WIN provides advanced IT services for business communication between LSPs and their clients. Platform functionalities cover forecast-related information propagation, logistic order lifecycle management, and invoice management support. Further value-added functionalities include: historical & continuous status monitoring, quality measurement via KPIs, and forecast propagation [cp 3,4].

From the LSP's perspective, the ability to provide clients with *reliable historical feedback* on the status and quality of LSP services results in more and bigger business opportunities. Business processes, tasks, and capabilities can be *monitored throughout the entire order lifecycle*, from order entry until the execution of deliveries. This feature helps LSPs track their business processes which can be used as an input for strategic business development and for providing potential clients with accurate data on performance and service quality. Business KPIs are also available for monitoring based on partner data gathered and stored by the platform. The importance of accurate

KPIs is adamant. LSPs are well aware of the fact that a main criteria based on which manufacturers and their customers make their LSP selection is tangible data, such as KPIs.

In regards to internal use, being able to *forecast* future capacity requirements based on previously gathered data and statistical analysis, will result in more accurate business plans, reduced operational costs, and optimized business processes & resource allocation. Within the framework of FLUID-WIN, LSPs are able to record and to access transportation orders, status orders, and feedback on a single interface. These data are available on demand for creating reports and for mapping out trends to support strategic business decisions. The bottom line is that access to the tools provided by B2B interoperability platforms results in higher profits.

FLUID-WIN represents a multi-level multi-domain space for LSPs to collaborate with their clients and partners. Communication is conducted with the support of various gateways which act as translators between differing data formats.

The platform is able to gather data from every single LSP's unique legacy system, interpret it via gateways, and disseminate it with the help of user-friendly interfaces. The information, which gets propagated among partners, abides by international standards and uses globally accepted business protocols, therefore providing a *higher level of standardized interoperability and the business efficiency* that comes with it.

Lastly, the platform is able to *bridge communication between financial and logistic service providers* and to provide an avenue of communication for building mutual trust and cooperation. The direct link, between LSPs and FSPs respectively, is not available through other interoperability networks. Our team has recognized the fact that fast and accurate electronic communication among service providers is just as significant to their fruitful mutual collaboration as it is to their collaboration with the manufacturers.

Summing up, the above-mentioned monitoring, forecasting and system-access capabilities produce concrete results for the LSPs. They result in reduced communication costs; reduced margins of error originating from manual data entry; reduced order processing and feedback time; reduced stock levels; and ultimately, increased bilateral and multilateral transparent electronic communication among cooperating partners regardless of their geographical location, size, and technological resources.

Overarching Benefits

For financial service providers, four overarching benefits are visible:

- Tapping into large B2B networks,
- Real-time data on FSP clients,
- Faster turnaround on trade financial services, and
- Efficient one-to-many communication.

From the LSPs' point of view, FLUID-WIN *platform openness* is the main benefit derived by SME supply chain networks. Within the platform, LSP SMEs are able to interact with their clients in the same way as their larger competitors are doing it today. The LSPs are able to access structured information, which was previously

unavailable. In the middle term, service providers will be able to improve their business by offering more transparency, and by reducing the clients' risks brought about by logistics outsourcing.

FLUID-WIN leads to direct cost reduction owing to the implementation of electronic communication, reduction of paper usage and of time spent on providing requested information to the client.

Conclusion

The aim of this paper was to provide LSPs and FSPs with ideas about ways in which FLUID-WIN can enhance their business processes and business potential. We have achieved this by elaborating on some of the main benefits offered by web-based interoperability platforms, while highlighting the advantages provided by the FLUID-WIN platform in particular. We strongly believe that FLUID-WIN provides a higher degree of transparency to its members and shorter transaction time resulting in added business opportunities and enhanced trust from both the client's and the partner's side.

We envision the future as one in which enterprise interoperability becomes a basic business utility, which can be accessed by all enterprises world-wide, at a minimal cost. Cheap, fast and reliable web communication infrastructure is the future of B2(B2B) relationships, as we see it. Trust and security are the buzzwords for business collaboration in the 21st century, both of which can only be built in time, with adequate communication channels. Hence, we encourage the reader to give B2B platforms a second thought when devising future business strategies.

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