

Ensuring the success of your *blockchain project*



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Several proofs of concept emerged in 2017. 2018 will be the year of deployments. The debate has moved on: the contributions and the potential of blockchain no longer need to be proven. Stakeholders are now focusing on specific experimentation with this technology and its application in their field of activity. To ensure that these experiments are successful, Worldline has developed an agile methodology that helps participants frame their needs and define the limits of the solution. Once these stages are complete, Worldline supports the development of the solution and ensures the operation of the service for all participants.

Blockchain is an innovative technology that raises many questions. Based on the research we began in 2013, we will try to provide the answers required. Our leading position in the processing of banking transactions has naturally led us to research blockchain for the financial field: the acceptance of bitcoin on our payment terminals, the tracking of corporate bond deals, etc. Since 2016, we have been evaluating blockchain's potential in other sectors such as health, the automotive industry and even the supply chain. This research has been led by Workforce Blockchain, which is made up of experts from Worldline and Atos whose tasks include blockchain training, technology exploration (Bitcoin, Ethereum, Hyperledger Fabric, Multichain, of which Worldline is a partner and recognised contributor, Ripple, etc.) and the identification of use cases, and proposes implementations in the form of demos and pilots.

Role of the technology partner

Historically, Worldline has always supported its customers in the creation and operation of innovative digital services by committing to results. The company now wishes to become the ecosystem technology partner by implementing a solution based on blockchain technology.

In a blockchain, there is no central actor. The role of the technology partner is therefore slightly different from the definition usually given in IT projects.

It's the «guardian» who ensures that the rules of the game, defined by the participants themselves, are respected by all.

It is preferable not to have a stakeholder take on this role, in a bid to maintain the trust established. In addition, it is this actor who assigns a technical team dedicated to the project and thus provides the ecosystem with a unique and organised response. Finally, Worldline relieves certain participants from involvement in technology by acting on its behalf. This will be the case for certain small-scale actors that do not have internal IT management.

The project step by step

As an integrator of global solutions, Worldline is responsible, in the majority of cases, for the full creation and operation of projects. Beyond providing a specific component such as the blockchain, Worldline's service includes the creation of an end-to-end service and the integration of technical components specific to Worldline or from third parties.

1. THE PROJECT DESIGN

This stage is mainly driven by the business players. It includes the framing of requirements. In other words: what business needs will the future solution address? Is the ultimate goal to improve performance? To add a new service? Worldline guides the actors through a series of questions that enable the desired value proposition to be formalised.

Starting from this value proposition, we can evaluate whether or not the use of the blockchain is appropriate. Indeed, in some cases, there are existing solutions that can meet the need.

Blockchain is relevant when three essential conditions have been met:

The ecosystem is complex and broad.

This means that there are numerous actors and/or that they operate in different business areas. Whether partners or competitors, their own performance can impact the performance of others. The best example is the case of freight transport: the end consumer's delivery experience depends on the performance of the sender, its carriers (road, air, sea), warehouses, customs services, etc.

The ecosystem interacts around a common asset.

This is the element that is at the centre of all exchanges (workflow). For example, a currency, as in the case of a financial transaction - but it can also be a car that gets repaired or a package that is delivered, or a contractual, financial or transport document that is filled in by several actors in a specific order within a time limit, etc.

All members of the ecosystem benefit greatly from the collaboration.

While the ecosystem actors have a common interest, the value they derive from the collaboration is whatever they want it to be: improving performance, creating a new service, reducing costs, etc.

If the value proposition is formalised and blockchain is proven to be appropriate, the next step is to bring together the ecosystem actors that will integrate the pilot.

We recommend limiting the number of participants to speed up the definition and implementation of the pilot. The scope will then be extended to achieve the desired benefits. Together, these participants define the rules of the game, e.g. the type of information to be shared, confidentiality rules, access rights, scalability. Remember that in a blockchain, it is the actors themselves who define the framework of the project, and not a solution provider.

the implementation of the solution

2. IMPLEMENTATION

This means translating needs into functional and technical specifications. To facilitate this modelling of the global architecture **Worldline created “MoBlo”, a tool that facilitates communication between stakeholders that focus on the functional with those that focus on the technical.** It allows the initial specifications that will determine the structure of the target solution to be defined in a very visual way.

A blockchain project is a complex project because it involves an entire ecosystem. It is important that participants focus on defining the objectives and operating rules, and that they are supported by a trusted technology partner for the implementation process.

These technical specifications include:

Implementation



Blockchain is a solution deployed among the participants. The features are called up through authenticated requests on a local or remote network.

The various types of blockchain available today are more and more configurable, so they can be integrated into system constraints in the best possible way.

Data access layer



Information writing and access can be configured as either open to all or limited based on the rights defined in the governance (the rules of the game). Encryption mechanisms make some information inaccessible to certain participants. The blockchain is a data file naturally shared (P2P) between users of the same blockchain, depending on the configuration.

Rules of the game



These rules of the game (integration of new actors, addition of new rules, upgrades, etc.), defined by the participants, are published in the blockchain and accessible to all.

As the guardian of the rules, the technology partner is responsible for enforcing them.

Interfaces



If information does not exist in an information system already in place, a means of collection must be developed (API, mobile application, web portal, connected sensors, etc.)

If the information exists in an information system that is already in place, simple connectors will allow information to be transferred from one system to the other. Many programming interfaces (APIs) make it possible to integrate the use of blockchain regardless of the native language of the project.

Blockchain type



Intrinsic characteristics differ from one blockchain to another, depending on the context. You have to choose the technology best suited to the needs of the participants.

Associated services



Backups to determine how to manage the loss of a security key by a user, for example; Processing so that performance always meets the specified requirement level; File servers to supplement the information contained in the blockchain; Reporting and auditing tools for the efficient use of tracked data; The operating guarantee and network management to ensure the security of the system.

3. DEPLOYMENT AND MANAGEMENT OF THE SERVICE OVER TIME.

On a day-to-day basis, the technology partner must ensure that no technical malfunction slows down or prevents the completion of transactions. It must also support and assist the participants in the implementation of the solution, by adapting to their needs (micro firms, SMEs or large companies, low level of technological equipment or many information systems in place, etc.).

With its experience in payments and other types of transactions, Worldline is committed to high performance, security and support for all ecosystem participants. It acts as the single technical point of contact that facilitates the processes and interactions with participants.

Leveraging its expertise in transactional services, its success in terms of innovation and Workforce Blockchain, Worldline can take on the role of technology partner in creating your proof of concept and in the transition to operational service status at ecosystem level.



About Worldline

Worldline [Euronext: WLN] is the European leader in the payments and transactional services industry. Worldline delivers new-generation services, enabling its customers to offer smooth and innovative solutions to the end consumer. Key actor for B2B2C industries, with nearly 45 years of experience, Worldline supports and contributes to the success of all businesses and administrative services in a perpetually evolving market. Worldline offers a unique and flexible business model built around a global and growing portfolio, thus enabling end-to-end support. Worldline activities are organized around three axes: Merchant Services, Mobility & e-Transactional Services and Financial Services including equensWorldline. Worldline employs more than 9,400 people worldwide, with estimated revenue of more than €1.5 billion on a yearly basis.

Worldline is an Atos company.

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