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Key Considerations When Joining a Blockchain Consortium

By Oliver Yaros, Joe Pennell and Matthew Marvin

Most blockchain technologies are developed by foundations or consortia, the members of which are often representatives of the industry hoping to create and successfully deploy the technology. The range of industries that have discovered the benefits of joining a blockchain consortium is diverse, including financial services, insurance, supply chain and logistics, transportation, healthcare and pharmaceuticals.

Regardless of the industry, though, a number of common, key challenges must be addressed when creating or when joining a blockchain consortium. These include the governance of the consortium; the ownership, licensing and use of technology produced by it; and any associated antitrust claims and issues that may arise if it is to successfully launch and ensure the widespread adoption of blockchain technology within its industry.

Oliver Yaros (oyaros@mayerbrown.com) is a partner in the Intellectual Property & IT Group as well as the Technology & IP Transactions and Cybersecurity & Data Privacy practices of the London office of Mayer Brown. **Joe Pennell** (jpennell@mayerbrown.com) is a partner in the firm's Technology & IP Transactions practice in Chicago. Following preparation of this article, **Matthew Marvin** unfortunately passed away; Messrs. Yaros and Pennell express their appreciation for having had the opportunity to have known and worked with him.

BACKGROUND

In recent years, the rapid introduction of new technologies and new market entrants has put companies around the world under increasing pressure to reduce the cost and increase the efficiency and effectiveness of operating their businesses. Whether it be in financial services, insurance, transportation or supply chain and logistics, entities in all industries incur, in some form or another, significant expense to perform business processes that are time- and labor-intensive.

In the financial services industry, for example, major banks spend hundreds of millions of dollars on internal recordkeeping and checking operations to support their businesses, tasks that may not provide them with any competitive advantage, increase the value of business in the eyes of clients or necessarily satisfy the demands of regulators that consistent and correct approaches are taken.

At the forefront of the emerging technologies being proposed to address these challenges is blockchain. In the example above, rather than a bank keeping its own record of events about the transfer of ownership of assets, the performance of contracts and the identities of clients – logged according to that bank's own policies, procedures and standards and constantly cross-checked and confirmed with counterparties – the bank could instead, using blockchain technology, hold a copy of a ledger

that is used to record this information according to common standards, with every change in the information verified and recorded in each copy of the ledger held by the blockchain participants.

Retailers have also discovered that blockchain technology can be used to reduce cost and improve efficiency within their internal supply chains. For example, instead of manually extracting data from numerous, unconnected data points to calculate the amounts owed to a freight carrier (e.g., fuel costs, mileage, shipment delays), retailers can leverage blockchain technology to synchronize these points within a network in a way that reliably (and instantly) tracks and reconciles pertinent shipping data.

Participants in the healthcare industry employ blockchain technology to provide a means for pharmaceutical companies and medical institutions to securely and reliably track and trace prescription medicines. The shipping industry similarly uses blockchain technology to enable the exchange of supply chain event data and documents between shippers, authorities and other members on a distributed network.

Regardless of the industry, however, before any organization can reap the benefits of using these types of technologies, it is critical for those companies seeking to participate in a consortium to collectively play an active part in the development of these blockchain solutions and ensure that common technologies are adopted in their respective industries. Most participants are trying to ensure this happens by coming together to develop blockchain technologies as part of a foundation or consortium, but there are a number of key challenges to overcome.

KEY ISSUES AND PRACTICAL CONSIDERATIONS

Governance

Defining the objectives of the blockchain technology to be created by the consortium and the role that each member will have in its success can be difficult to establish, with each participant often having different and competing interests that will have to be carefully managed.

Some companies involved in creating the consortium will try to influence the direction it takes so that the eventual solution will be tailored to satisfy their particular standards and legal requirements, spending a lot of time and consideration in the design phase to achieve this outcome.

Others may focus less attention on the exact form of the solution and more on the strength of their investment and control over the created technology, seeking to obtain a dominant position compared to other members regarding the consortium management and potential financial return from the successful exploitation of the technology.

The remaining companies may have joined to obtain a seat at the table, looking to hedge their bets on the success of the competing initiatives emerging in the industry and unwilling to make difficult decisions or make anything other than basic contributions to the decision-making process and the financing of the initiative.

Meanwhile, tech companies developing the technology for the venture may be interested in creating, marketing and launching the new technology as quickly as possible in order to establish themselves as preeminent players, maximize the return on their investment and provide themselves with a springboard to expand their businesses into other industries with or without the other consortium members.

These differences can often create tension over the direction and operation of consortia between members, slowing progress and, in some cases, causing fragmentation within the industry, with organizations leaving to create rival consortia or pursuing different solutions and standards. Thus, it is very important that the goals of the initiative, number of likely participants, levels of investment and roles that each member will be able to play in its governance be made clear in a memorandum of understanding executed at the start of the initiative.

Decentralization, which is a key aspect of blockchain and other distributed ledger technology, can also cause parties to disagree with respect to certain governance issues. A consortium allows members to exchange data and information through a decentralized network of nodes spread across the globe, not requiring a central party. As a result, without specific governance and dispute resolution rules in place, it can be difficult to determine which laws and regulations apply to any one transaction. In a private consortium, participants will usually agree

to a specific form of a dispute resolution process. Consortia that operate in regulated industries might also mitigate regulatory risk by designating a single node to be controlled by a regulator or a party acting as a neutral party within the network.

Intellectual Property

Agreeing who will own and who will be able to exploit the developed technology is critical to the success of any initiative. While blockchain technologies may be built on open source software by their creators as part of a foundation or consortium, consortia will frequently require their members to contribute their own software, materials and know-how to the project.

As a result, complex and thorough negotiations between the participants have to take place to agree on the terms under which members can use each other's intellectual property and confidential information for the purposes of running the consortium, as well as the terms governing ownership and use rights for any developed technology. Otherwise, consortium members risk losing control over their intellectual property, with rivals potentially able to use it or develop, monopolize and exploit the technology created from it to the detriment of the contributing participant and the rest of the consortium members.

Furthermore, members of a consortium need to address the risks associated with the failure of blockchain technology to work as intended or claims that the technology infringes third-party intellectual property rights. Allocation of these risks between contributors and users of technology (usually via limitations on the contributors' liability) will need to be carefully considered in order to incentivize contribution of technology to the consortium and the widespread adoption of that technology by users. The outcome of the negotiations on this issue can significantly affect the successful adoption of the technology within the industry, particularly where there is very limited recourse for users of the technology to seek redress from those parties that provided or developed any technology that is proven to be copied or defective.

Antitrust

The organizations in a consortium cannot outsource or ignore their regulatory responsibilities and must ensure that their participation in a consortium with industry rivals to streamline common business processes and develop shared, industry-wide technological solutions will not raise antitrust concerns.

On the one hand, coming together with other participants within an industry to develop new technology should promote innovation and should benefit customers in the form of lower costs and more efficient and safer transactions. But creating a forum at which representatives of different businesses can discuss and share information about their respective approaches to internal processes to develop blockchain technology increases the risk that commercially sensitive information could be shared between them in a manner that results in claims of anti-competitive practices.

This is particularly the case when it is possible that the blockchain technology developed as part of the initiative will become one of the dominant solutions adopted by the industry. Service providers previously involved in providing legacy solutions that have been replaced by the blockchain technology may claim that they were excluded from the group. Other industry players involved in promoting or adopting rival solutions displaced by the developed technology may complain that the members of the consortium have worked together to force the general adoption of the technology, set prices or unfairly benefit financially from the successful uptake of the blockchain technology they have developed to the detriment of the rival solutions that have been squeezed out of the market.

To avoid information being shared that may give rise to these types of claims, it is critical to ensure that an antitrust "rules of the road" document is prepared that explains the types of discussions and information that can and cannot be shared between representatives attending foundation or consortium meetings and that this document is provided and explained at regular intervals to each representative. In most cases, an antitrust lawyer will also be engaged to attend key meetings between representatives to moderate their discussions and provide on-the-spot advice to ensure that anti-competitive discussions do not take place.

Depending on the laws and regulations that apply to the industry in which the consortia operates, some consortia may seek to obtain antitrust

exemptions from applicable antitrust authorities. These exemptions are more likely to be granted to consortia whose members have carefully drafted limitations on the handling and internal disclosure of confidential information among the members or on the sharing of certain customer agreements, practices or pricing.

CONCLUSION

While there are many potential benefits of using blockchain technologies, there are also a number of key legal challenges that businesses in a foundation or consortium will need to overcome to successfully develop, implement and deploy the technologies within an industry.