built on the Ethereum public blockchain (Higgins, 2018). As in Scenarios 1 and 3 of Figure 9, smart contracts would ensure that only certain types of information can be retrieved by other relevant authorities. Given the multiplicity of blockchain technology-based frameworks emerging, such a scenario is likely to be limited to some cases only.

Scenarios 3 and 4 of Figure 9 seem more likely to become reality in the years to come. In Scenario 3, the government authorities on both sides of the transaction would each belong to a different platform, each being based on its own technology. In such a case, inter-ledger interoperability would be needed. Aware of the stakes at play, the Blockchain community is actively looking into possible solutions. Interoperability tools between Hyperledger and Ethereum, for example, are being developed.[28] Another, more global, approach being discussed would consist in creating an inter-ledger notarization system that would allow authorized parties to verify transactions irrespective of the ledger on which they are created (UN/CEFACT, 2018). Notarization could be performed by a sole entity or by different entities – at the cost, however, of reintroducing some degree of centralization. Many in the community see the development of a notarization system as a critical element of widespread interoperability (see also Section 4.2(a)).

In Scenario 4, either some or all of the government authorities in the importing and exporting countries would remain off-chain and would interact with a given blockchain-based trade platform through APIs (i.e. application programming interfaces, which allow information to be pulled out from one system to another) on a case-by-case basis – provided that the coding used by the smart contracts of the blockchain is compatible with APIs. In this scenario, Blockchain would do nothing to facilitate cross-border G2G interaction, which would continue to proceed as it had prior to the introduction of the new blockchain system. Such a scenario could nevertheless present some value for both government agencies and participants in the blockchain-based trade platform: APIs could allow government agencies to pull relevant information from the platform to accelerate customs clearance and other processes, and participants in the blockchain would be able to pull authorized information from government agencies to facilitate the processes they handle via the platform.

What these various scenarios show is that while Blockchain can, under an integrated system, considerably facilitate technical cross-border G2G interaction, it is unlikely to be a panacea to global G2G interoperability issues. A truly global integrated system is unlikely. A more probable scenario is the coexistence at a global level of various platforms built on different technologies. Unless interoperability issues between such platforms are settled, turning to Blockchain with a view to facilitating technical cross-border G2G interaction, and international trade transactions more generally, is unlikely to make a real difference.