**CONCLUSION**

Even though existing cloud platforms are used as shared repositories, they do not support any notion of shared ownership. We consider this a severe limitation because contributing parties cannot jointly decide how their resources are used.

In this paper, we introduced a novel concept of shared ownership and we described it through a formal access control model, called SOM. We then propose two possible instantiations of our proposed shared ownership model. Our first solution, called Commune, relies on secure file dispersal and collusion-resistant secret sharing to ensure that all access grants in the cloud require the support of an agreed threshold of owners. As such, Commune can be used in existing agnostic clouds without modifications to the platforms. Our second solution, dubbed Comrade, leverages the blockchain technology in order to reach consensus on access control decision. Unlike Commune, Comrade requires that the cloud is able to translate access control decisions that achieved consensus in the blockchain into storage access control rules. Comrade, however, shows better performance than Commune.

Given the rise of personal clouds (e.g., [9], [10]), we argue that Commune and Comrade find direct applicability in setting up shared repositories that are distributively managed atop of the various personal clouds owned by users. We therefore hope that our findings motivate further research in this area.