

**Paris Session
2022**



CONTRIBUTION-4, Q.4

**THE LIMITS OF BLOCKCHAIN
APPLICATIONS' SCALABILITY**

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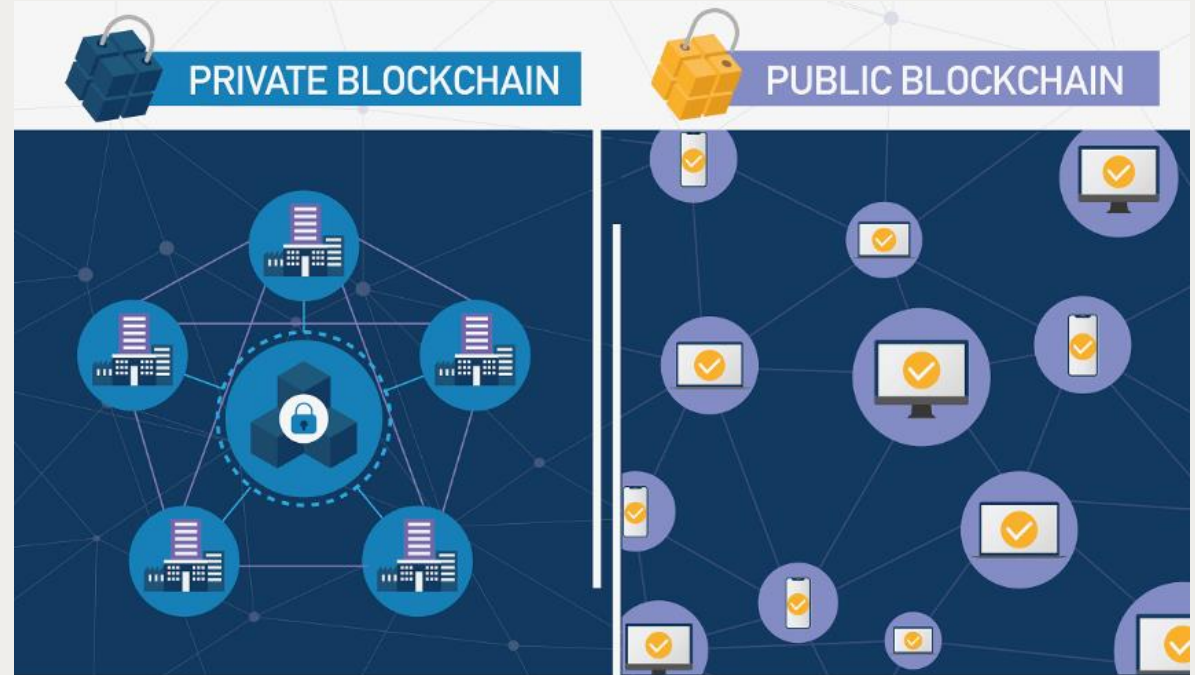
QUESTION-4:

Are there any concerns around scalability of blockchain applications in energy markets that could limit further blockchain deployments?



THE LIMITS OF BLOCKCHAIN APPLICATIONS' SCALABILITY

- In most cases, the concerns around the scalability of blockchain applications relate to public blockchain networks, such as Bitcoin or Ethereum. Anybody can join the public network, that's why they are more reliable but slower.
- The private blockchain frameworks are closed, only approved users can participate in the network and make changes to the blockchain (add new data, etc.). These networks are less decentralized but faster and more scalable.



Source: www.blogchainzoo.com

BLOCKCHAIN APPLICATIONS IN ELECTRICITY MARKETS

- In the energy sector, the specific fields of using blockchain can be found, where private blockchain strengths are needed for the markets' actors:
 - Electricity trading (retail markets or microgrids)
 - Smart metering
 - Billing
 - Tracking certificates of energy origin
 - ...?

THE BLOCKCHAIN AND ENERGY ATTRIBUTE TRACKING

- Using non-fungible tokens as unique certificates can provide transparency and double-spending problem solution while reducing transaction costs
- EAC market actors and authorities can participate in a blockchain platform to observe that the system operates correctly with the respect to a grid specification
- Integration with exchanges