**Problem with decenterized system:**

A transaction is introduced to the members, and is only validated, or executed when more than 50% of the network reaches consensus about it.As these transactions have anonimity associated with them. As long as the network agrees that the transaction is valid, the transaction is executed. What if the transaction was from an arms dealer, or payment from drug traffickers? There’s very little a government could do to stop the transaction.

massive amount of miners mining on the network means that difficulty needs to keep increasing thereby leading to mostly useless computations done by miners to outcompete each other. It is estimated that every Bitcoin transaction costs about as much electricity that is required to power an average home for eight days. Therefore public ledgers are not very environment-friendly.

### The centralized solution

1 blockchain level encryption ensures that your data is safe,

2 in the same way a decentralized blockchain does by ensuring that transactions cannot be altered without invalidating the entire chain

3.Centralized blockchains offer much more customizability and control over the network to the organization deploying it as they can decide who gets to participate in the network.

### Public blockchain:

In public blockchain is just like internet every body knows about it and access to it it is a comprehensive development platform for decentralized computing, consisting of the ledger, smart contracts, distributed apps and much more. All transactions, apps and smart contracts are kept within the public network, accessible for everyone without a special permission .Due to block size limit of an block and the time it takes to mine the next one (Bitcoin 10 minutes, Ethereum 14 seconds) there us a transaction limit in all public chains.It could (or may) take a while until a transaction is commited to the blockchain.

### Permissioned blockchain:

Permissioned chains have a better transaction performance

In public blockhain transection take time to completed.so it decrese the througtput and speed of public blockchain.so we moved to the permissioned blockchain.

Permissioned block chains are more secure

In public blockchain each transaction is parmanetely in the chain.and every body has access to it.it is critical to decide which data should be in the chain.Within a permissioned chain there is often a differenciate between public transactions which are accessible by all members of the permissioned network and private transactions, send directly from one participant to another.

**Speed of innovation:**

In public blockchain established chains can only be changed in it’s core behavior by doing a fork. This depends on the majority of miners which is hard to achieve as the current bitcoin forking discussions show. As far as an innovation, helpful for doing enterprise business, requires a core change, it would be really hard and time-consuming to do this change. In permissioned blockchains, changes can be implemented quite faster since it only requires the “vote” of the attendees or owners of the permissioned blockchain.