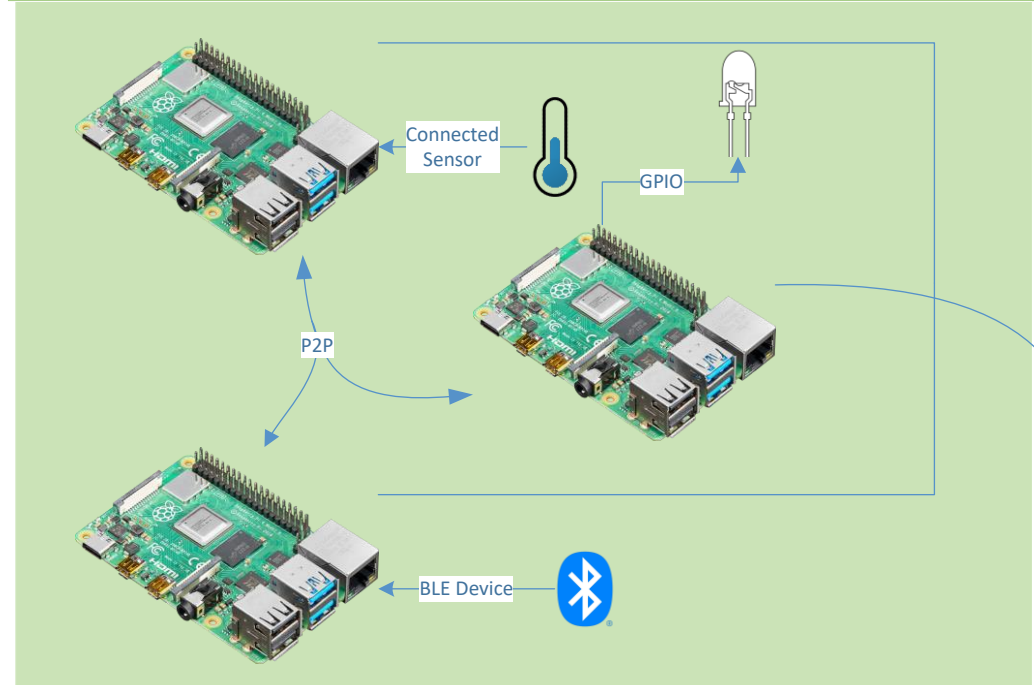
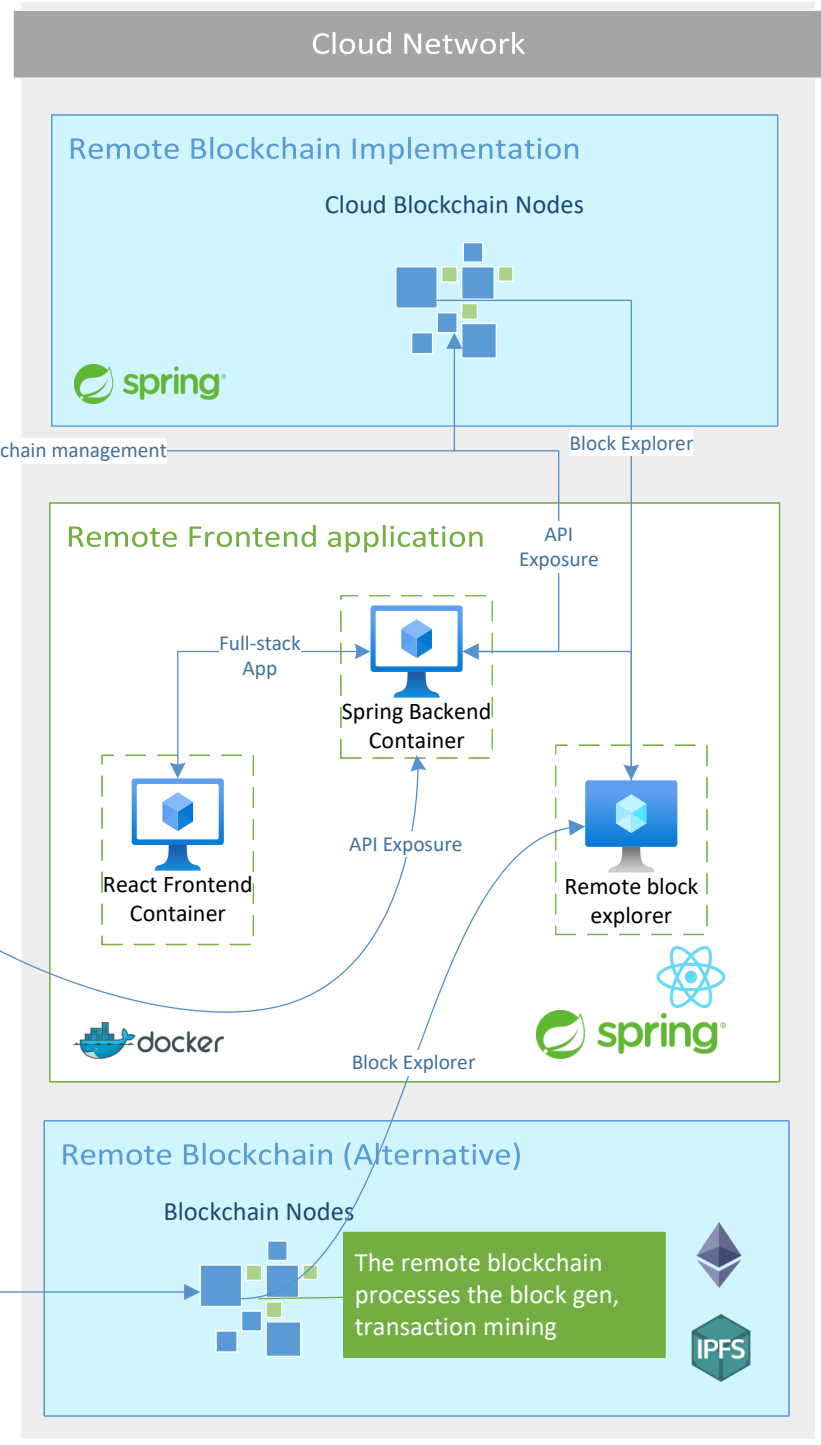
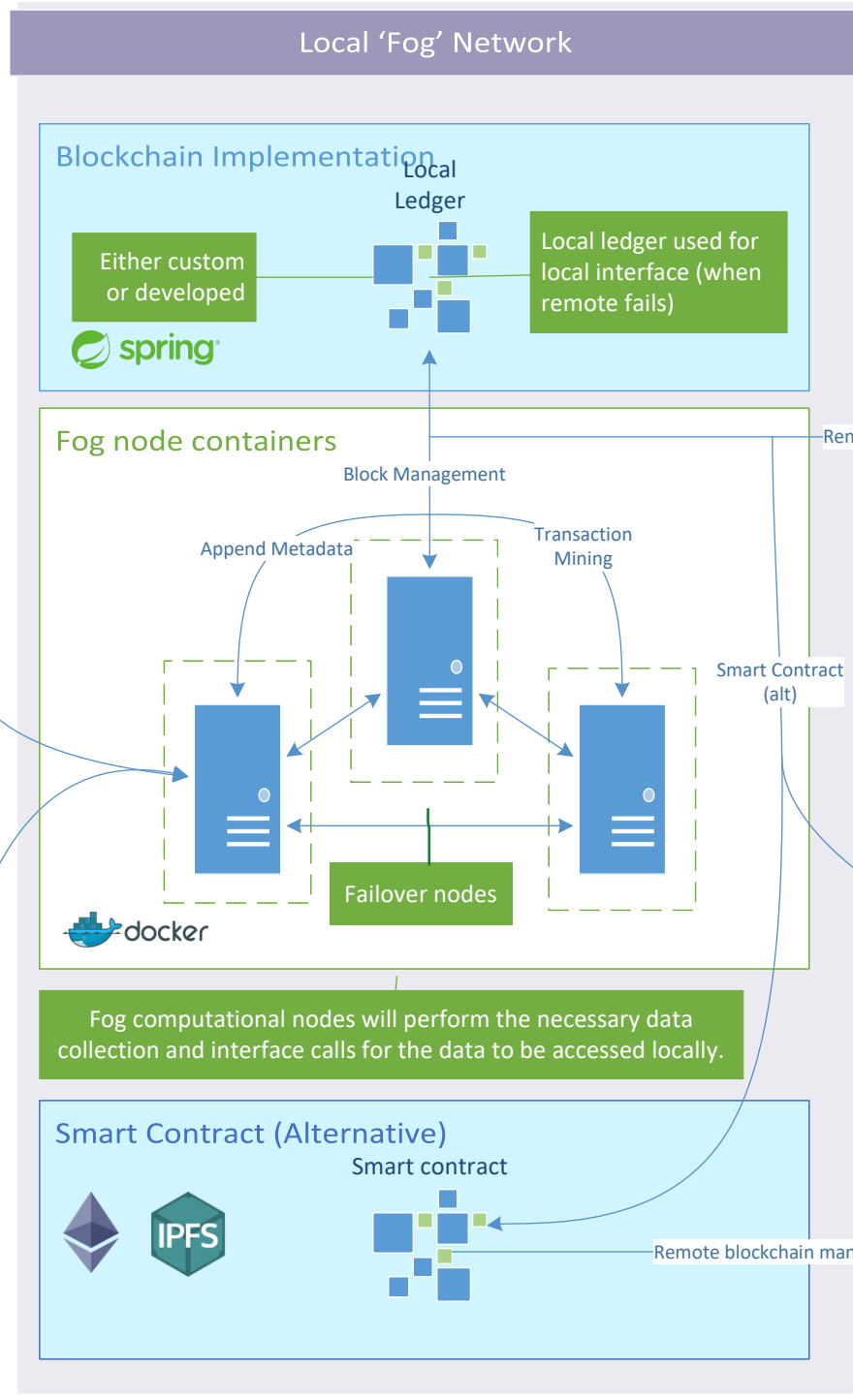
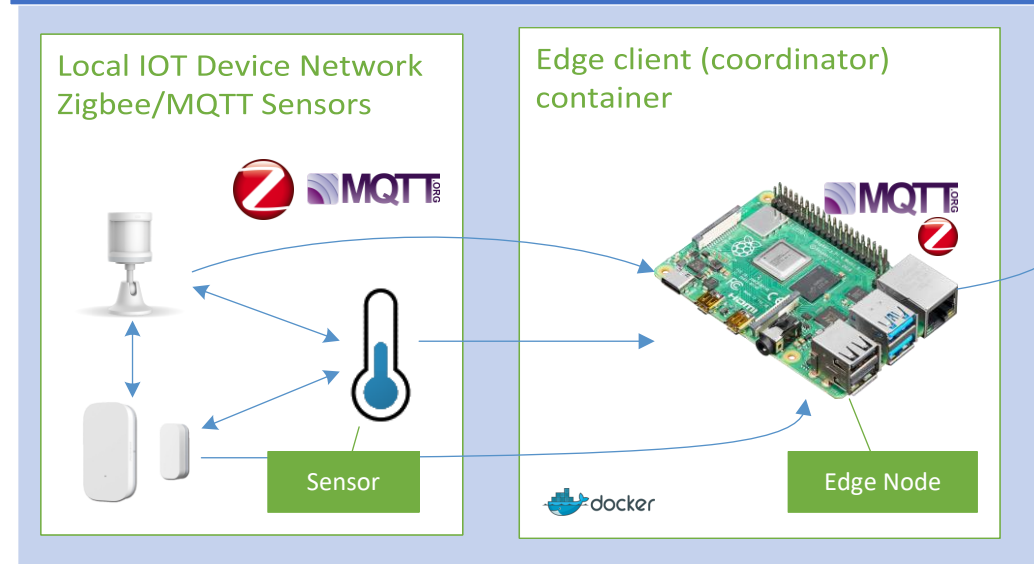


## Custom P2P Implementation Using Edge nodes as data collection



## IOT Connector to current network



Critical Evaluation Factors	
	The number of blocks generated per blockchain and how this delays transactions. (PoW / PoS to be investigated)
	Ensuring the data submitted to the blockchain is immutable and of high data integrity
	The latency measured from IOT-Fog and Fog-Cloud layers and how this plays a role with IOT
	The storage capacity of the metadata available within a transaction. Will this limit be triggered on data intensive workloads?
	The failover node system for when fog nodes are offline – how does this affect processing?
	System for local interface when the cloud application is offline. The type of API calls available to the local fog.
	Investigating making IOT data private by using transaction hashes to identify data without revealing actual IOT data

Technologies Used	
	Docker containers allow creation of microservices where processes are isolated and networks can be setup
	The backend interface of the application will run on Spring Boot which allows me to program in Java  In addition, a custom blockchain implementation can be developed using libraries adapted to Spring Framework.
	React.js is a framework that allows me to develop the frontend of the web-application to communicate with the backend.
	The blockchain technology for an alternative method using smart contracts could be Ethereum / IPFS
	Local IOT devices would use MQTT/Zigbee to get sensor information within their local IOT device network.