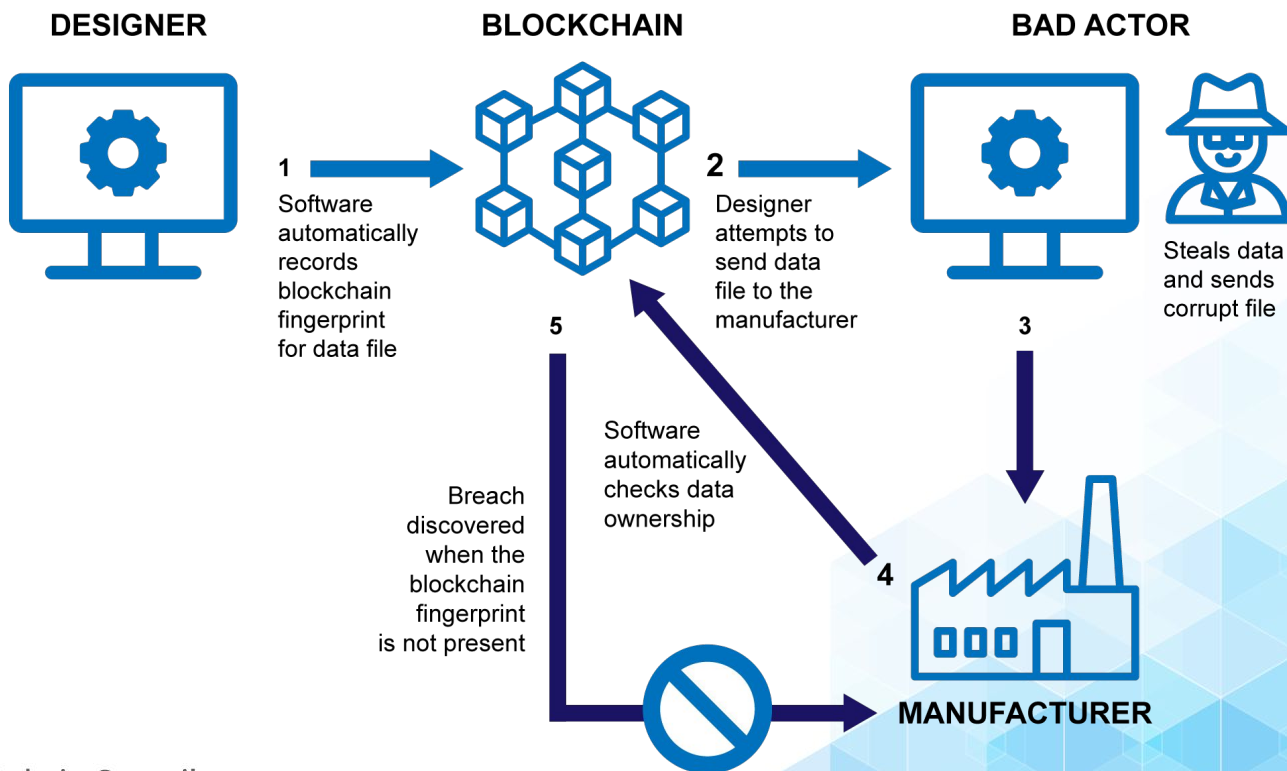




# Blockchain Use Cases in other Industries

# Blockchain in Additive Manufacturing



# Blockchain in Additive Manufacturing

- In manufacturing, blockchain offers a 3D digital thread of instructions that are electronically communicated throughout the process in chronological order instead of having 2D blueprints of the lifecycle of a product.
- It eliminates the need for human interpretation, translation or data transfer, which equals saved time and money.
- If a data thief, someone we call a 'bad actor,' grabs the Manufacturer 1 file and tries to send a fake data file to Manufacturer 2 to cover his crime, Manufacturer 2 will know something's wrong because the blockchain fingerprint of the real file will not be there.
- The dispersed factory of the company enables clients to work with the right 3d model for their output and transfer production files directly through a 3d model safely, without human interference. This platform gives benefit to consumers with low turnover, expensive management, who have overloaded inventory. It's also useful for firms who need to periodically track manufacturing processes.

# Challenges faced by Gaming Industry

**Server outages:** Due to overloads or hacks, games with more players can suffer server outages. This exists because centralized servers are run by many. That is why all players feel it when the server is down.

**Cheaters and bad players:** Centralized video games are very easy to hack on. A gamer says that an average of 17,000 players are banned for cheating on PUBG on a daily basis. Much of the time, as there is no algorithm to search for playing irregularities, other players are the "police" who report bad players.

**No earnings:** Gamers only play for a personal and social thrill with no earnings. Collectibles are not transferable to other players or to other gaming sessions in these games. For selling in-game tips, there are no game arenas. People who teach 'how-tos' of the game to others are not encouraged for their time and hard work.

**Storage:** Online players can quickly lose their progress in gameplay because most online games store player progress and experience player data as temporary files that are discarded as soon as players complete their gaming session. Such information is stored by other gamers in centralized storage that is open to hackers and viruses.

# Blockchain - viable Solution to these challenges



**Decentralization (No server Outage):** Without the need for a central source server, IPFS has made it very convenient to exchange data at a very high speed. Each server that connects to the stream becomes a source for data to be retrieved by newer servers. This is possible with the validation of nodes that validate the files exchanged across the network are genuine. This way, the entire network is not compromised even though a server suffers an interruption.

**Transparency:** With transparency, it would be very difficult for any bad guy to compromise the game code. Wunbit goes a lot better than that. It makes the game codes available for players to freely access and see that they are not being cheated and proved to be a fair engine. Via the smart contracts that each game works with, this form of data can be managed.

**Earning:** For their activities on the platform, players on the Wunbit platform can receive WUN tokens. For eg: after the complete platform launch, Fly2Win will reward the top three players with WUN tokens, which will be exchanged for fiat currencies.

**Storage:** With Wunbit, players can now permanently store their game-states and high scores on the blockchain. The blockchain is permanent, so it is not possible to alter, modify, or erase data stored on it.

# Issues faced by Gaming Industry

**Ineffective tracing of contaminated and diseased products:** The global food supply chain puts together producers, wholesalers, manufacturers, shopkeepers, owners of stores, warehouses and factories under one umbrella. With this large volume of data, inefficiencies in the chain are expected to occur.

**Frauds and scandals:** The food industry is no stranger to illegal acts and scandalous actions due to existing procedures that are vulnerable to human error and the malicious intent of those persons involved.

**Botched means of payment:** The rest of farmers' earnings are swallowed up by intermediaries and transaction costs. Farmers are not paying what they should be for their produce, especially in places like India, where agriculture is still the most dominant industry.

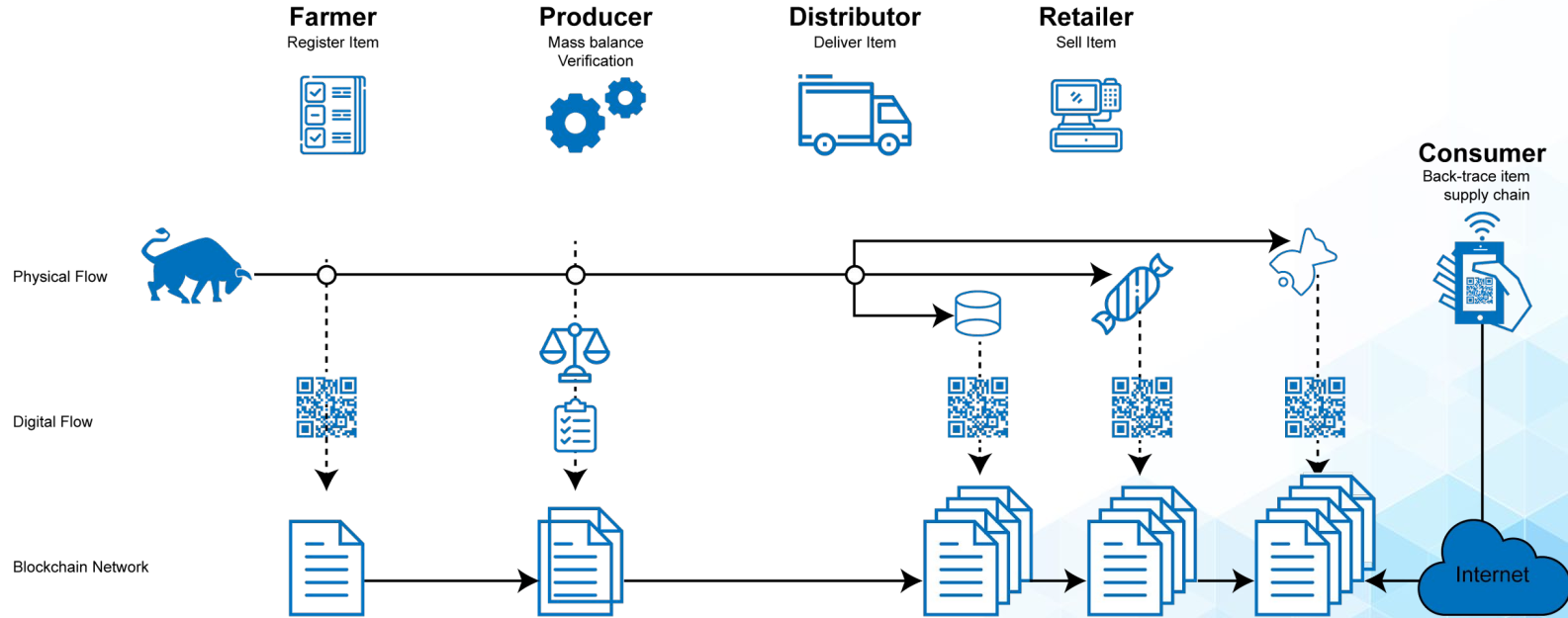
# How can Blockchain Help?

**Transparency and openness:** There is no space for any disruptive efforts to exploit the food supply chain because of the existence of the business blockchain. Because of the blockchain's food safety utilities, any activity such as tampering with the product or misleading advertisement can be automatically rectified and the culprits caught long before the produce made it to the supermarkets.

**Better tracing capability:** The ability to properly monitor and display the status of food goods is one of the apparent advantages of integrating blockchain for food safety. Retailers can locate and withdraw damaged goods easily, saving a lot of overhead in total recalls. And, because of the blockchain for food protection, if action has to be taken on tainted products, their source can easily be tracked and necessary measures are taken.

**Preventing losses due to diseases and/or fraud:** Using blockchain technologies in the supply chain, and using blockchain for food protection, a follow-up from the previous argument will potentially help to get rid of subsequent damages generated by the consumption of contaminated and/or diseased items.

# Blockchain in Food Industry





# Blockchain in Food Industry (Examples)

## CHINA:

China has upped its game to ensure that the food it offers to its people is the very finest, after being shaken by the 2008' melamine in milk' controversy.

Studies have shown that the public is indeed aware of the risks faced by unhealthy foods, with food safety being seen as a major concern in the world by at least 40 percent of the population.

The Blockchain Food Safety Partnership, which includes the country's main supermarkets and retailers, is a major step toward rules and guidance on food safety, and definitely goes a long way to giving consumers back trust and belief in the food they purchase.

With the food industry now obviously under the blockchain surge, China is doing its utmost to take advantage of all the advantages of this incredible technology to ensure food safety.

# Blockchain in Food Industry (Examples)

## **THE UNITED ARAB EMIRATES:**

Although the UAE does not grow any of its food domestically, it has still made effective use of digitization in tracking the approximately USD 200 billion worth of food that it imports per year.

Like China, the UAE is applying IoT and blockchain technology to track and control food goods from the point of production to the point of consumption.

A digital network, Food Watch, was unveiled at the 11th Dubai International Food Safety Conference in 2017 to incorporate all the information about food products served on the food safety blockchain by 20000 retailers.

The aim of the platform is to collect data on high-risk foods, the institutions that treat them, and the manufacturers or importers. This enables vital information on demand to be generated by customers and officials.