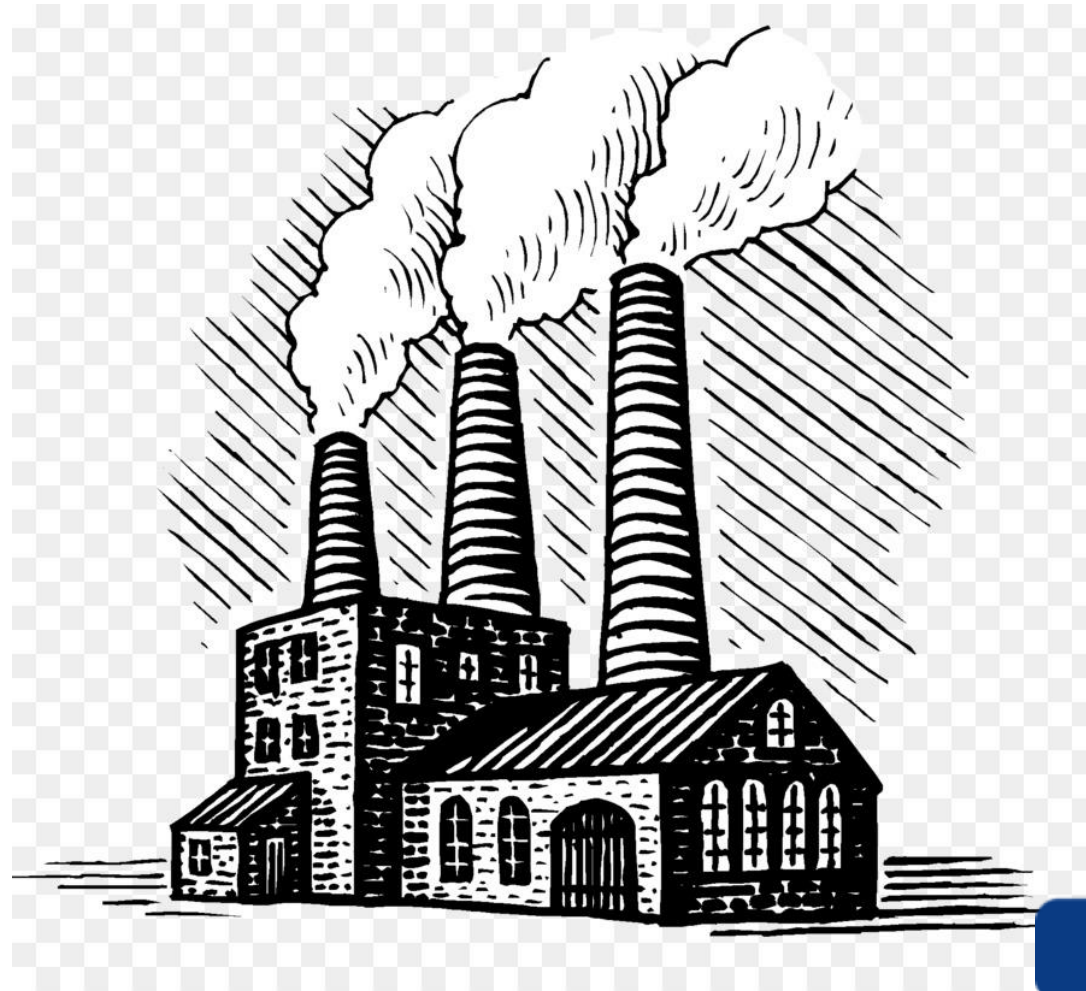


# Blockchain and IoT

A simple proof-of-concept

There's a factory on the other side of the world...



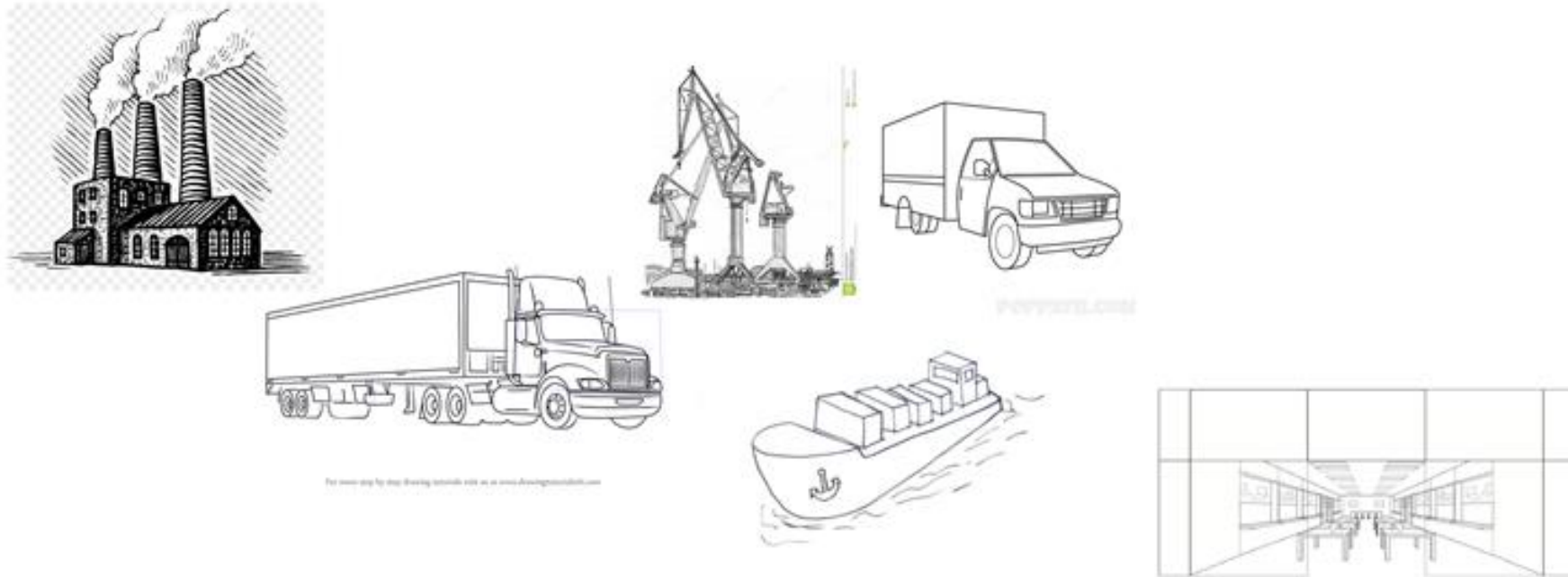
**BLOCKCHAIN**  
TRAINING ALLIANCE

...they make the electronics items you desire most.



**BLOCKCHAIN**  
TRAINING ALLIANCE

A lot of participants have to work together to get those items from the factory to you.

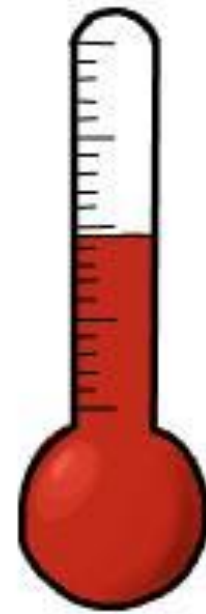


If items get damaged along the way, everyone loses.



**BLOCKCHAIN**  
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Abnormal temperatures, humidity, and excessive shock forces can damage items before they can be sold.



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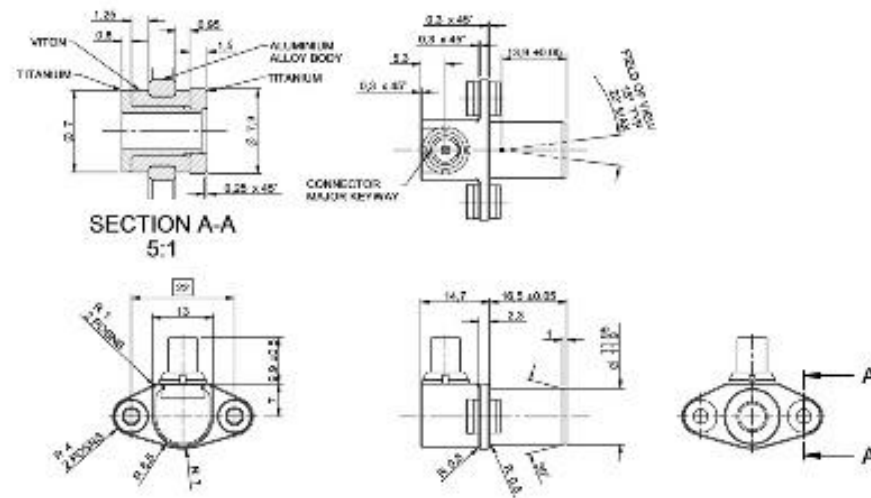


This costs money, and results in **unhappy customers.**



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Smart devices are cheap, powerful, and abundant.  
Let's track critical metrics about our shipment.



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There's just one problem, who *owns* the solution?



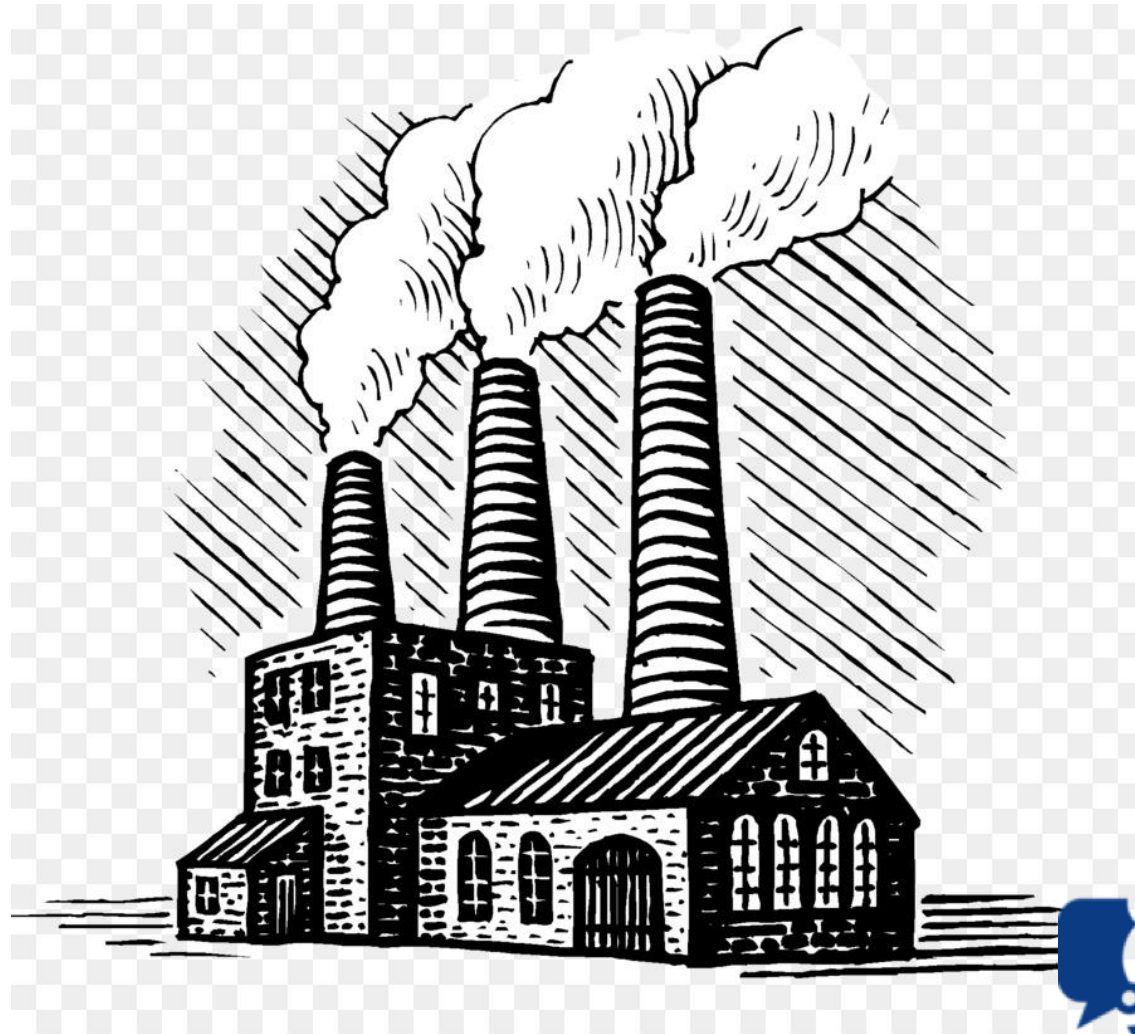
**BLOCKCHAIN**  
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Let's look at the journey these items take...



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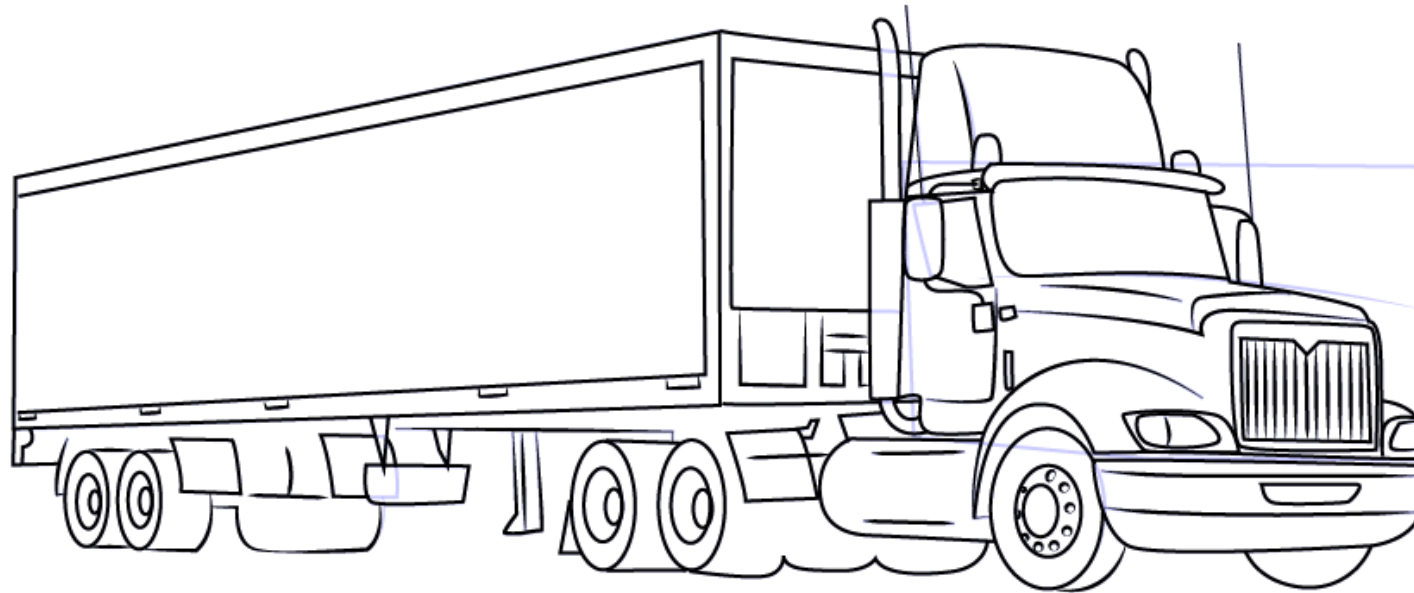
The process begins at the factory, where new items are created.



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# These items are then loaded into containers and transported by truck or rail.

Step 13

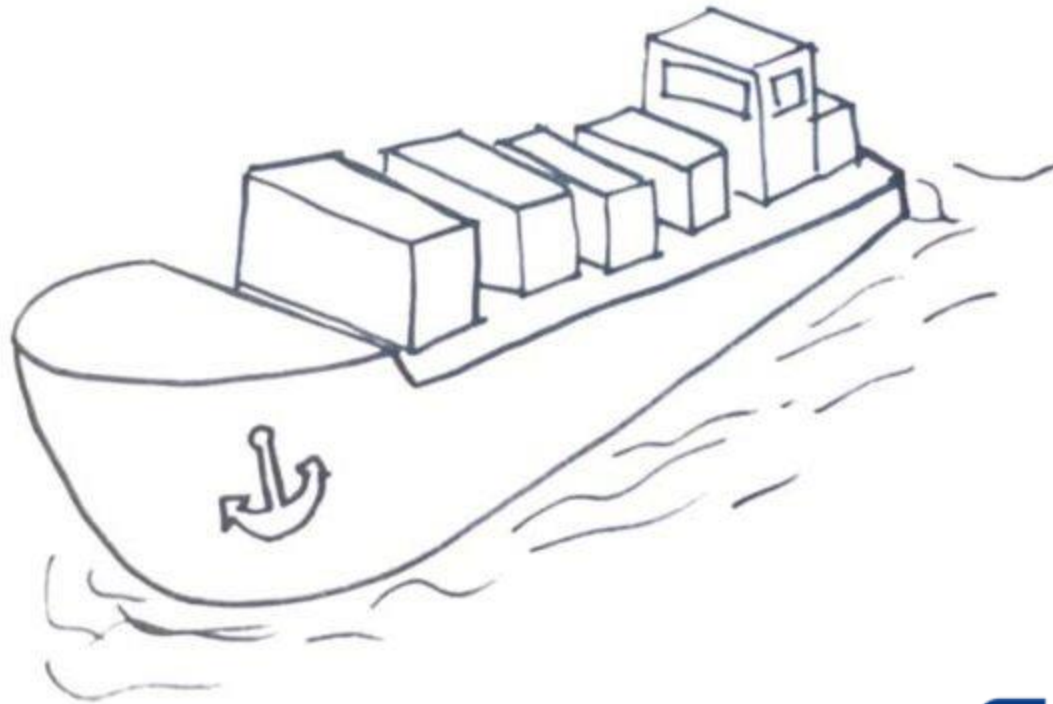


At the port of exit these containers are inspected and loaded onto ships.



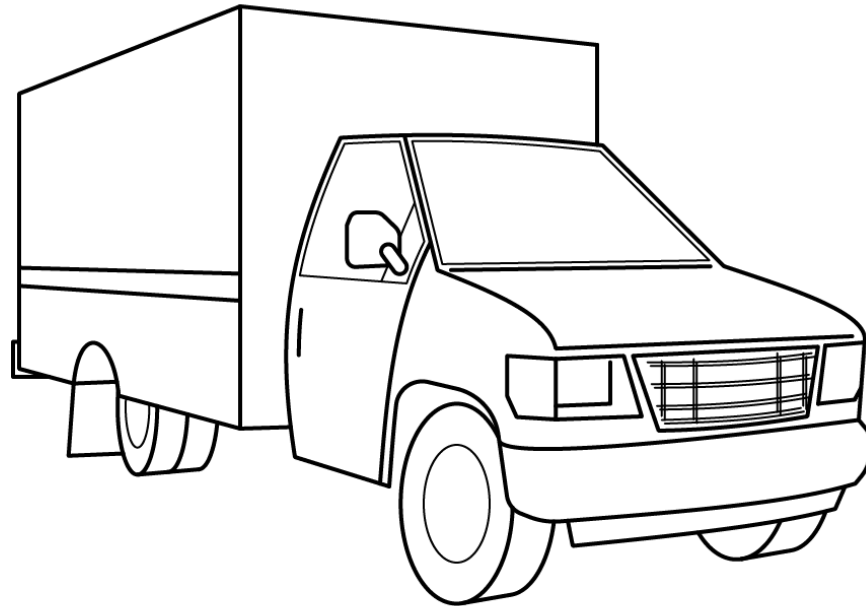
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Container ships deliver items to ports of entry across the world.



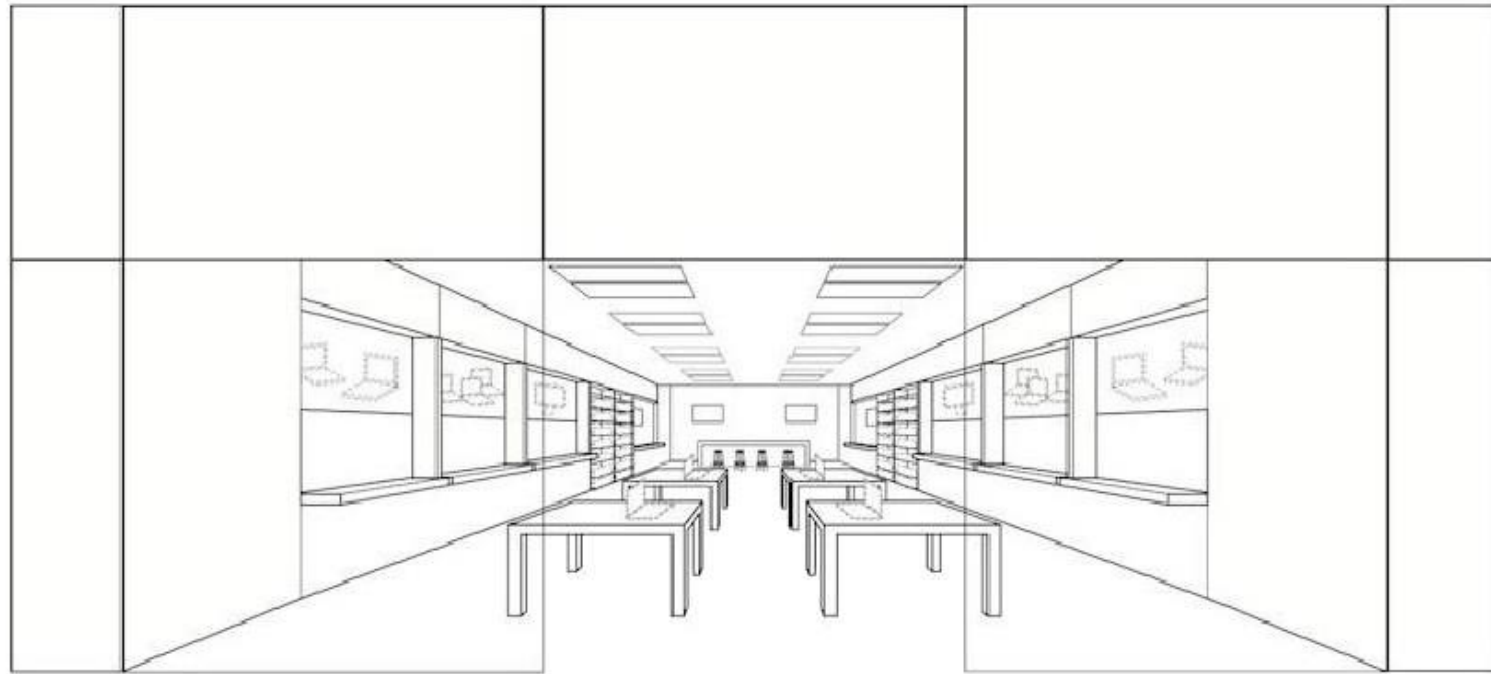
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At the local port of entry items are inspected and cleared for delivery to the local market.





Ultimately they are delivered to retail locations for purchase by end-consumers.



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If this process works well customers are happy.

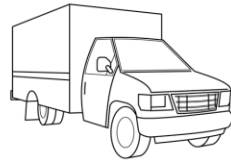


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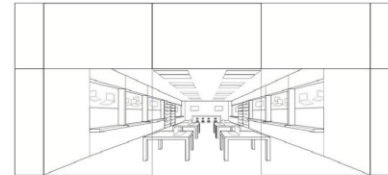
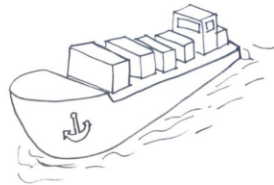
Many participants have to work together to achieve the desired outcome. They all succeed or fail together.



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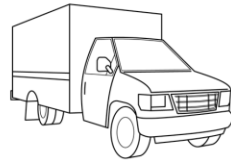


**BLOCKCHAIN**  
TRAINING ALLIANCE

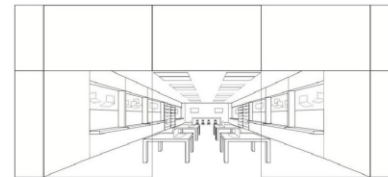
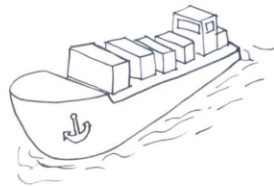
There is no *single* process owner. Having a solution which is owned by a *single* participants doesn't make sense.



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Blockchain enables this.

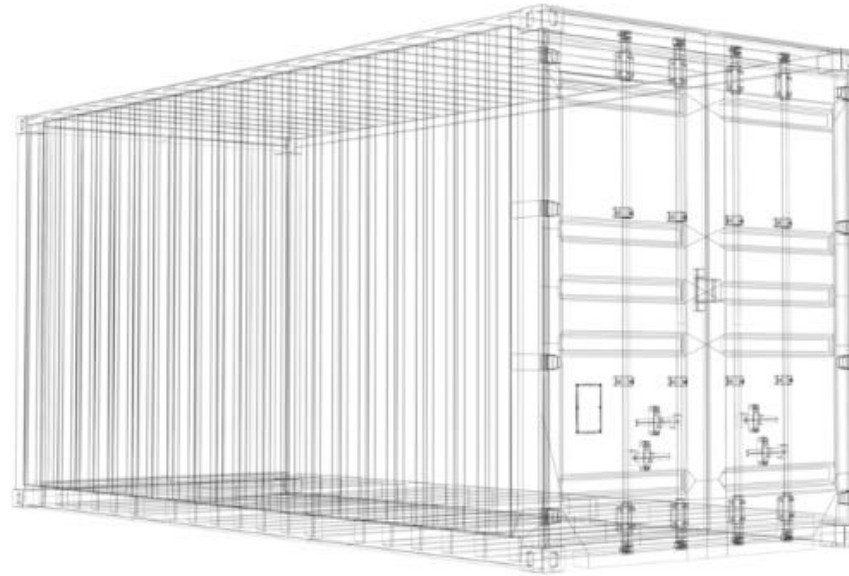


# **HYPERLEDGER**



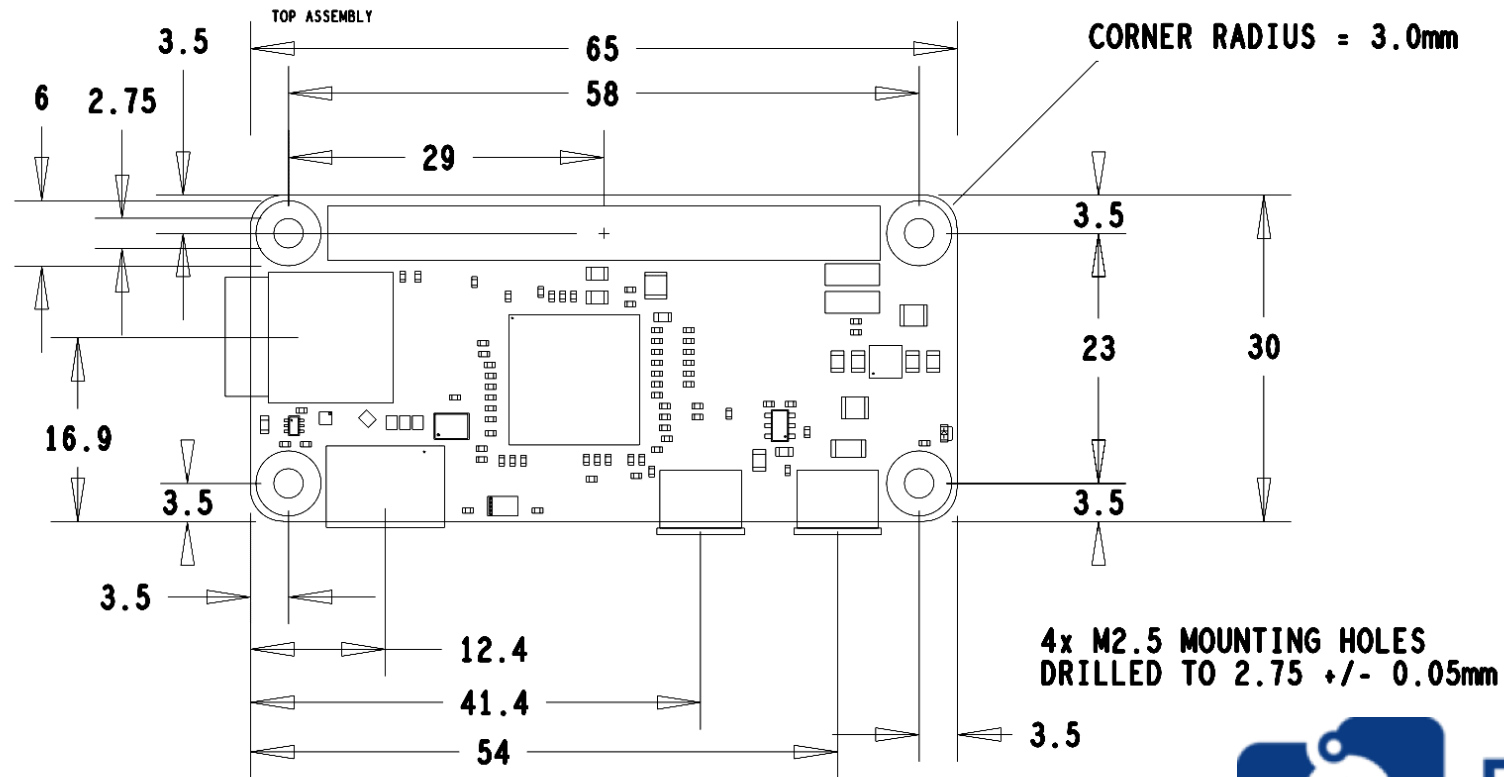
**BLOCKCHAIN**  
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Imagine if intelligent devices are installed in every container.



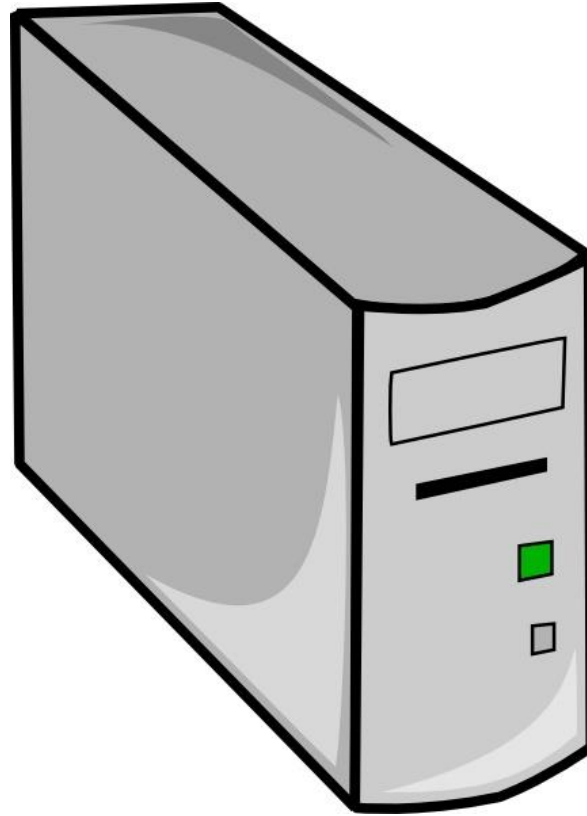
**BLOCKCHAIN**  
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These devices record critical metrics like temperature, humidity, and shock forces.



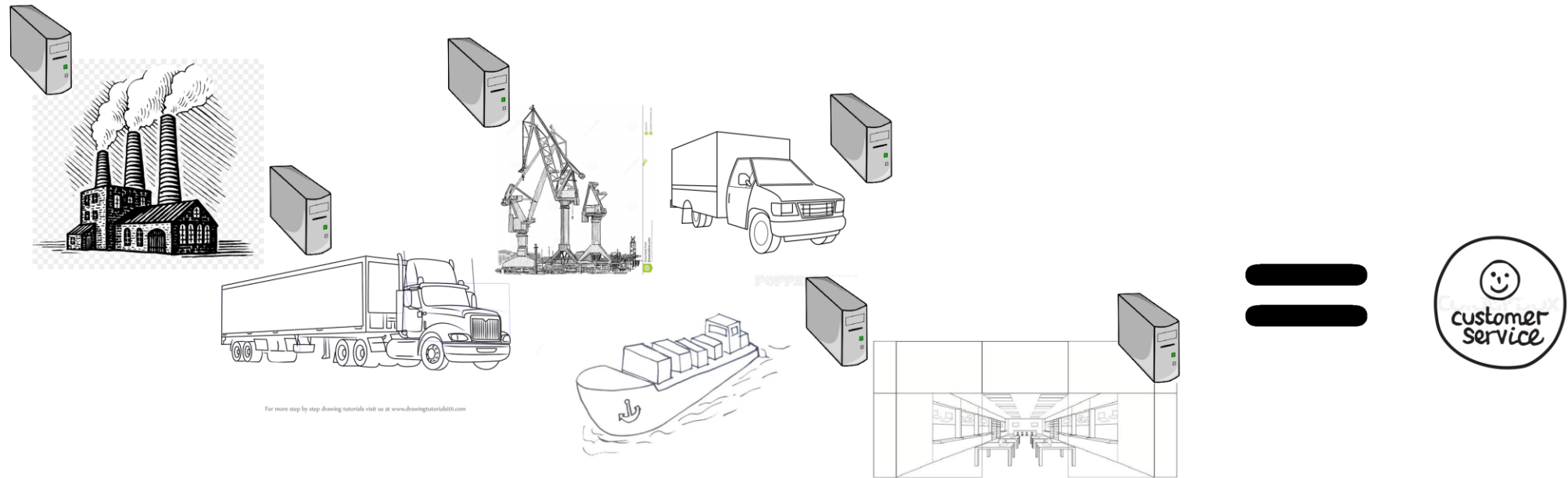


Nodes are configured to record these sensor readings.

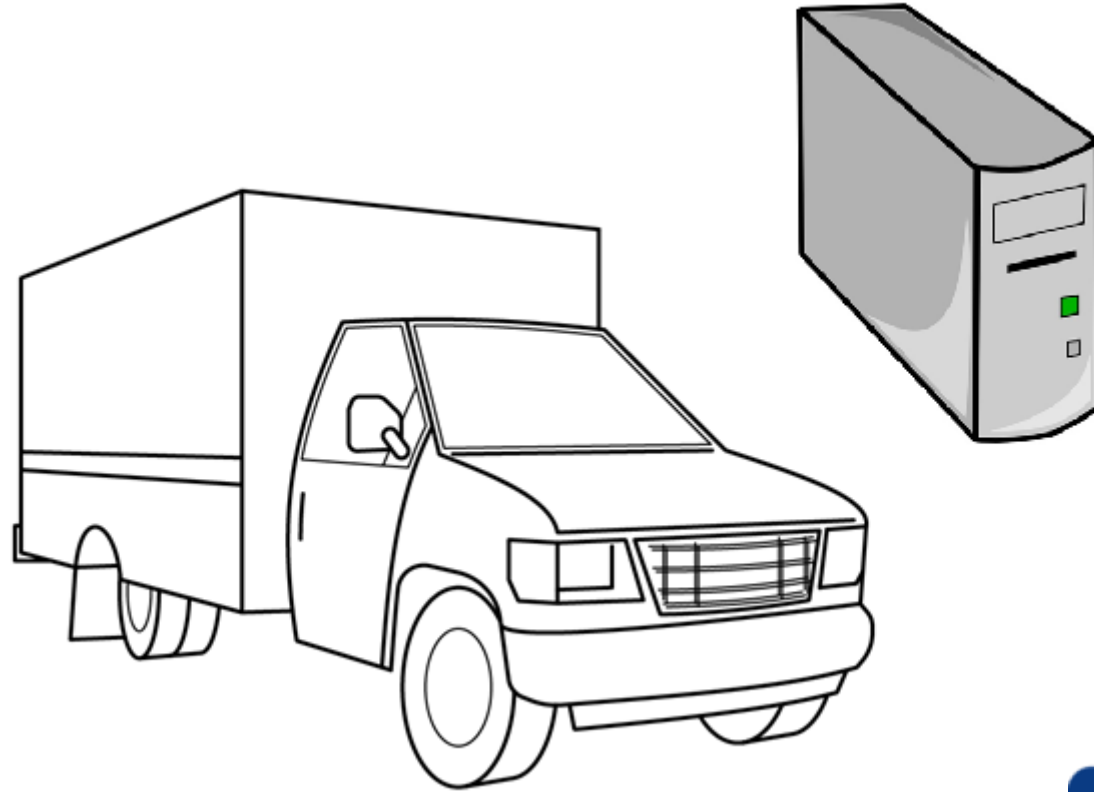


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# These nodes are placed along the journey.

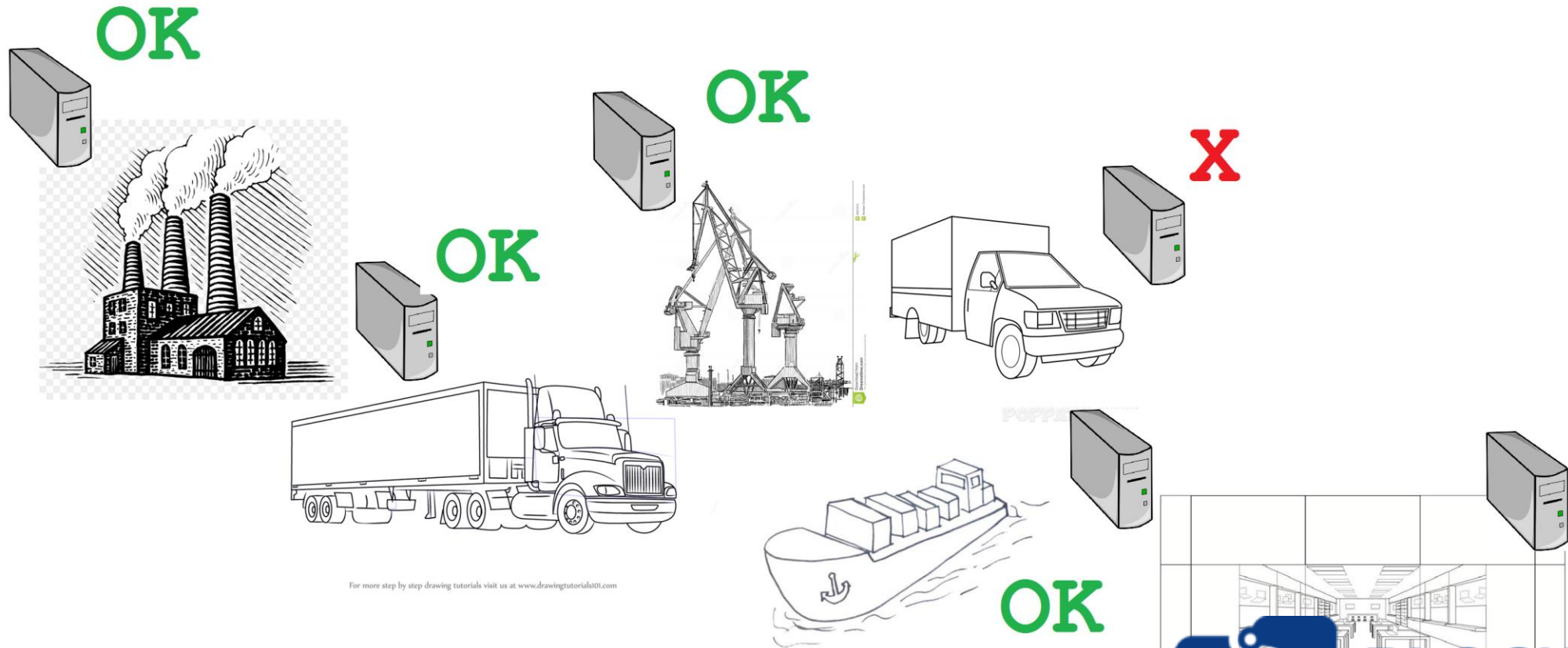


Each participant only worries about providing infrastructure for their own part of the process.



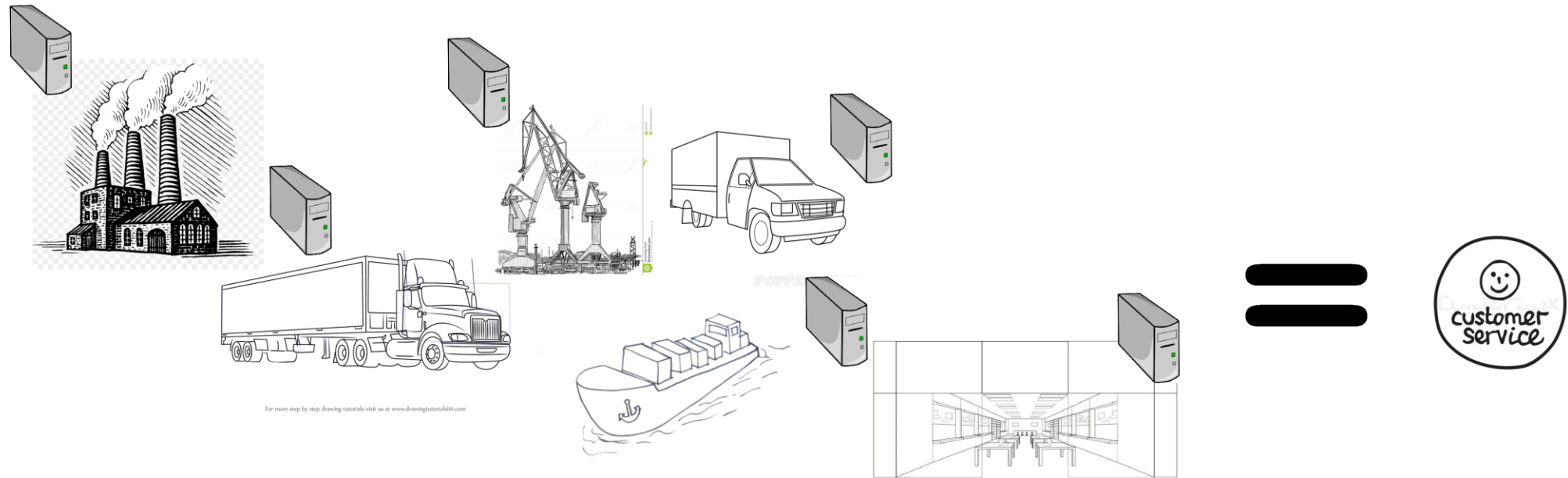
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# Errors and abnormal conditions can be detected and reported on immediately.



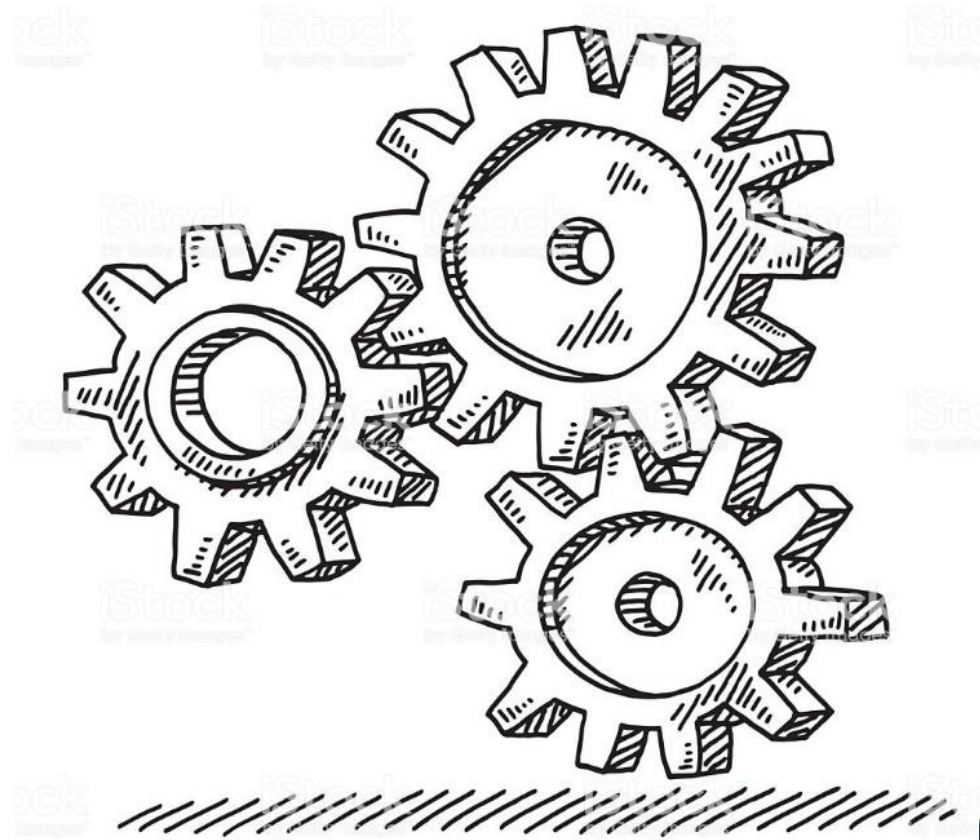
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# An end-to-end solution with no single owner or administrator.



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Let's see how it works...



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