TITLE OF THE INVENTION: Systems, methods and devices for a global cyber-physical afforestation technique(s) based on distributed ledger technology and derivative IoT (Internet of things) enterprise communication network applications.

BACKGROUND ART: The transportation sector accounts for largest share of U.S. energy related CO_2 emissions. 1628 million metric tons of CO_2 was emitted by transportation sector in year 2020. Industrial sector with its dependence on natural gas produced 949 million metric tons of CO_2 in the same period. (www.eia.gov) U.S. accounts for 310 million hectares of forest cover which is 7.6% of the world combined. From 2001 to 2020, U.S. lost 42.3 mha of tree cover equivalent to 15% decrease (9.7% by forest cover) in tree cover since 2000, and 16.36Gt of CO_2 emissions. The 2015 Paris Agreement, signed by 195 countries seeks to limit future global warming to well below 2°C above pre-industrial temperatures, and to attempt to keep it below 1°C. It is challenging, almost impossible, to meet the aim of 'net-zero' emissions —by balancing sources and removals— on the required timescale. To counteract these emissions will require enhancing the 'sinks' of greenhouse gases through the implementation of GGR (Greenhouse Gases Removal). The need of GGR, in addition to rapid emissions reductions, makes assessment and development of viable approaches to large scale GGR important. Guidelines for reporting of emissions have been applied and refined continually since Kyoto Protocol in 1997. Reporting guidelines for removals of greenhouse gases are significantly less well developed than those for emissions. Methods such as forestation and biological land based carbon sequestration have significant ongoing costs in the form of monitoring and verification requirements. Relevant considerations in the capacity of local labor markets and the ability and appetite to cover capital and operating requirements with relevant financial systems are needed. In areas where unemployment and job creation is a priority, approaches that have a higher labour to capital ratio is needed. The financing need for GGR is likely to be very large, potentially cumulatively in the USD trillions by 2100. GGR activities financing through capital markets could be encouraged through the implementation of policies designed to reduce the risk of investment for the private sector and provide appropriate returns through economic incentives. Given the short timeframe on which deployment is required governments may choose to directly intervene in markets. This might alleviate the high costs associated with 'first-of-a-kind' activities, while building experience in the sector and enabling any associated economic spillovers.

A constraint on delivery of GGR is the difficulty of monitoring its effectiveness in transparent and consistent way. So systems, methods and devices for a cyber-physical afforestation techniques based on distributed ledger technology and derivative internet on things (IoT) enterprise communication network applications is provided.

SUMMARY OF THE INVENTION: An object of the present invention is to provide systems and market program for distributed ledger technology (DLT) and internet on things (IOT) based afforestation and /or reforestation with each automobile sale and every gallon refined.
In the following description, for the purposes of explanation, numerous specific details are set forth in order to provide a thorough understanding of the embodiments of the invention described below. It will be apparent, however, to one skilled in the art that the embodiments of the invention may be practiced without some of these specific details. In other instances, well-known structures and devices are shown in block diagram form to avoid obscuring the underlying principles of the embodiments of the invention.

In one of the embodiment of this invention, a digital distributed infrastructure based on DLT over IoT will oversee planning, operating and execution of a series of complex profitable exchanges resulting from automobile sales of land air or sea based transportation vehicle. In addition, a sales dealership will be monitored for the amount of the net transactions made over a time period. In addition, any sales would trigger a distributed ledger system to initiate a series of transactions resulting in planting a specific number of trees. In addition according to one of the

methods of the embodiment a complete set of activities is implemented or carried out in the distributed ledger technology based system. In addition in one of the embodiments the class of manufactured automobile is maintained along with global output and their sales figures. In addition, one of the methods calculate the number of trees required to be planted according to the following class of manufactured automobiles namely bike, car(small medium), car(heavy luxury), trucks(heavy), wagon(transmetro), airplane, agricultural tractors, agricultural harvesters, industrial forklift, industrial robots, tanks(armored heavy), fighter jet, shipyard crane and shipyard miscellaneous.

In one of the embodiment of this invention, a digital distributed infrastructure based on DLT over IoT will measure every gallon of petrol, diesel and natural gas in the oil field to refinery supply chain building ingredients for fertilizers or plastics or chemicals. In addition the distributed ledger technology system one of the method comprises companies at each stage of the supply chain including governments contribute specific amount of capital into the system and utilized for afforestation methods. In addition one of the method one embodiment comprises of overseeing capital dollars raised at every stage of the supply chain from oilfield to distribution of petrol diesel and natural gas.

In one of the embodiments of the invention, a network to participate buyer as well as seller of automobile at the dealership in planting specific number of trees in their geographic region. In addition, one method of enforcing afforestation measures by buyers as well as seller of an automobile in a given region is given.

In one of the embodiment an electronic exchange based on distributed ledger technology and internet of things devices tagged on each tree planted is given. In addition according to one of the methods of one of the embodiment a distributed ledger based system measures sales at each dealership in a geographic region allowing bidding in distributed ledger based electronic exchange by land owners, companies and entrepreneurs supplying internet of things devices. In addition in one of the methods the network of trees and internet of things attached to them along with electrical systems to configure a local area network city wide 5G terrestrial internet communication network is given. According to one of the embodiments methods and systems allow operating managing and selling bandwidth from the 5G terrestrial communication network. In addition one of the methods allow implementation of asset sale and capital transfer of financial instruments generated at land tree internet of things devices or network level to be managed by distributed ledger technology based electronic exchange. In addition methods to implement application based on distributed ledger technology based bandwidth at a regional level is also given. Finally last but not the least the smart contracts resulting from inter connected network of distributed ledger technology based systems and internet of things devices attached to the trees to be traded at any public capital market exchange, private capital market or cryptographic coin exchanges in what is known as Initial Coin Offering. In addition one of the embodiments a distributed ledger technology based blockchain would offer virtual currency also know as coins to general public or private companies and to be traded at various exchanges in the countries as assets or financial instruments.

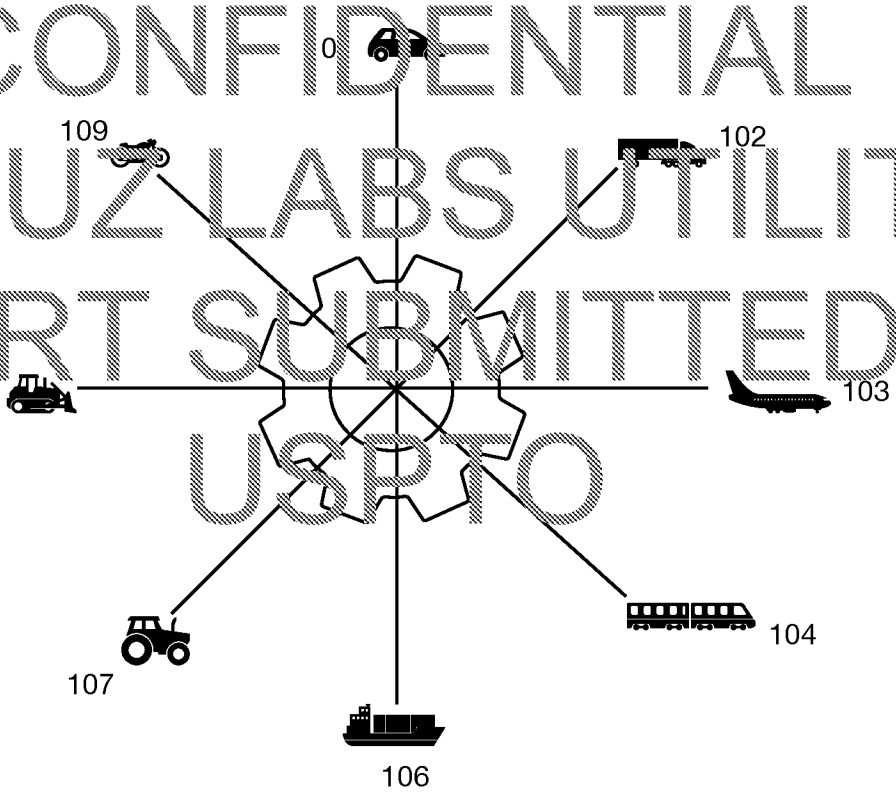
In one of the embodiment methods to transfer freely the ownership of afforestation measures taken at any given region invariably of who is buying or selling automobile at a dealership to who is finally allowing land in participating afforestation measures as long as the afforestation is conducted. In addition methods to implement based on distributed ledger system based electronic exchange with internet of things devices local suppliers, land owners, entity involved like city councils and companies to be replaced at any geographic region as long as the equilibrium of the dlt system state is maintained at each stage. In addition rules governing sets of parameters governing afforestation stage is maintained in the distributed digital infrastructure and any value of the parameter can be exchanged with another value outside geographical

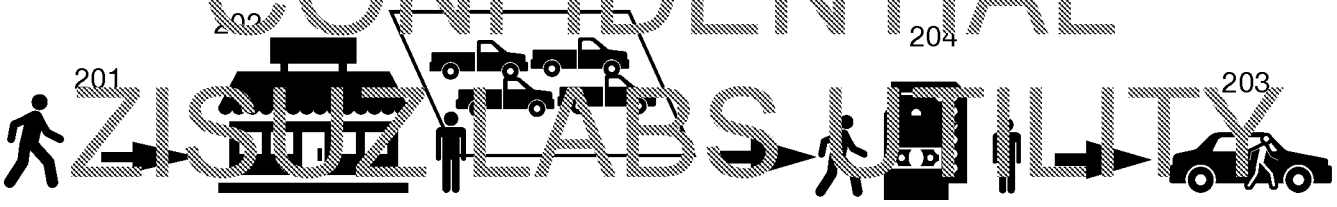
location as long as the state of the distributed ledger based system state finishes transaction successfully.

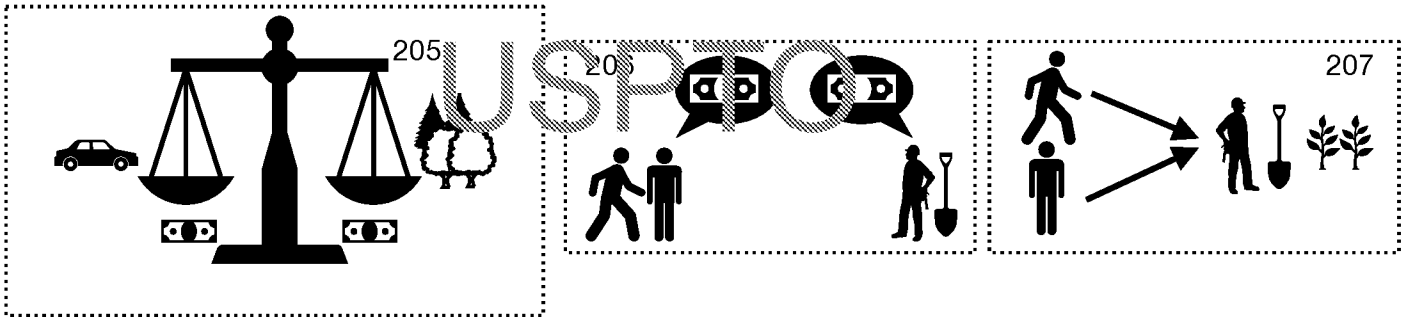
This new network is henceforth called NEW INTERNET as is based on digital distributed ledger tree based system conforming to local and international boundary rules. It is a layer of distributed connections made in applications that does not intend to break law governing local and international financial management rules. For example a set of transactions occurring in country A region B results in afforestation being shared by region C in country D.
One embodiment of the invention comprises an Internet of Things (IoT) platform which may be utilized by suppliers or local entrepreneurs to design and build new IoT devices and applications. In particular, one embodiment includes a base hardware/software platform for IoT devices including a predefined networking protocol stack and an IoT hub through which the IoT devices are coupled to the Distributed Ledger System. In addition, one embodiment includes an IoT service through which the IoT hubs and connected IoT devices may be accessed and managed as described below. In addition, one embodiment of the IoT platform includes an IoT app or Web application (e.g., executed on a client device) to access and configure the IoT service, hub and connected devices. In addition, one embodiment of the IoT platform includes a specifications a series of embedded sensors providing a wide-ranging types of information about itself or its surroundings and/or trees or equipment will be attached to. Existing IoT platform integrators may leverage the IoT platform described herein, readily provide unique IoT functionality to existing user base e.g., faster deployment internet connections from excess bandwidth.

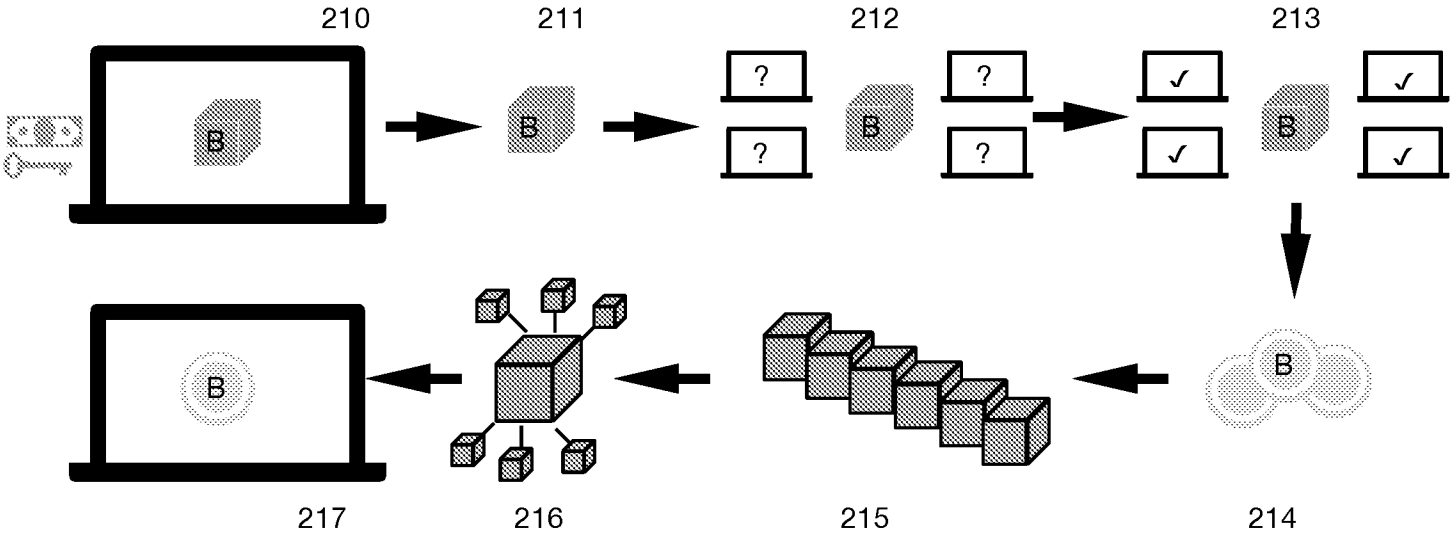
In addition, one embodiment of the IoT devices are powered using electrical signals from solar cells arranged in any number of configuration supplying electricity to one or multiple devices in an IoT hub depending on the numbers of trees and devices in the cluster. In addition, one embodiment of the IoT devices are powered using intrinsically by unbuilt battery power modules generating enough power to continue till the lifespan of IoT device or in combination of any power source e.g utility or solar as given above.

DRAWINGS:



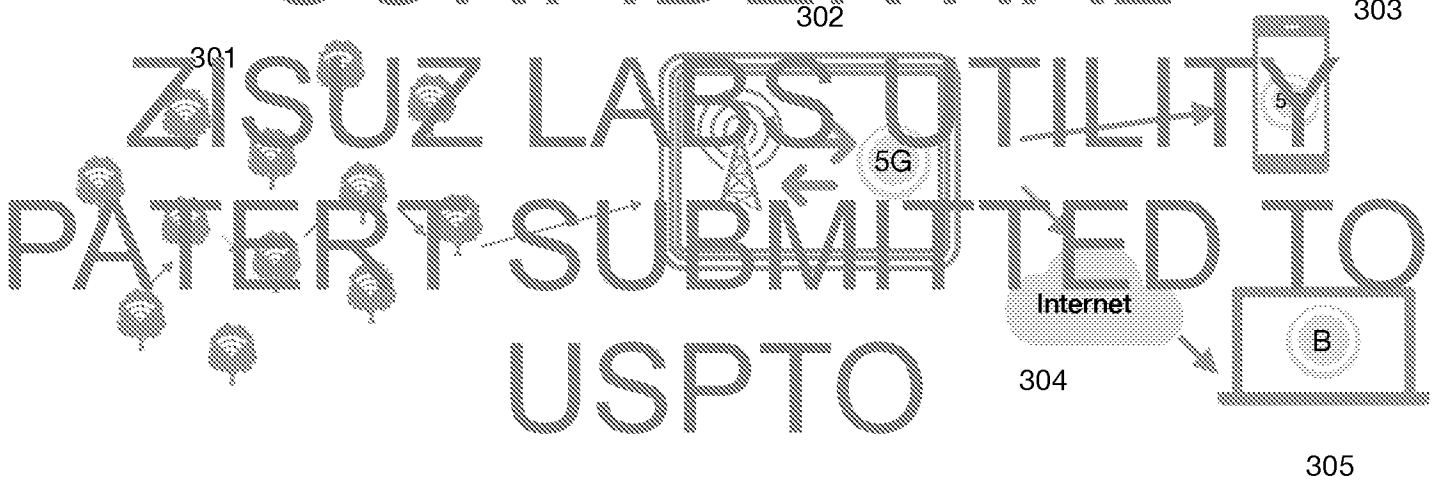


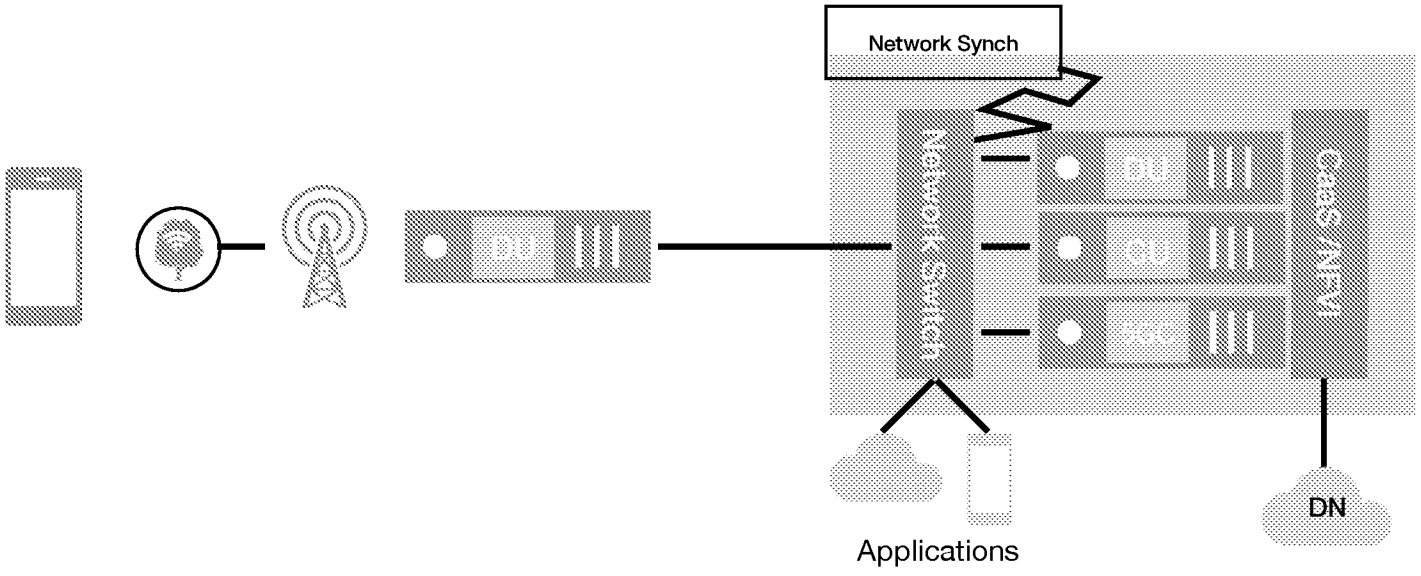




Units	UnitsSold	Projection	Mean	TreesCredit
Bike		$90.00	5.77%	577
Car (Small Medium)	73.6 Million		0.00%	700
Car (Heavy luxury)		$731.00	46.83%	468
Trucks (Heavy)	3.3 Million		0.00%	200
Wagon (Train Metro)		$ 93.67	18.61%	188
Airplane		$ 36.80	5.17%	151
Agriculture Tractors	2.7 Million		0.00%	120
Agriculture Harvestors		$10.79	0.69%	69
Industrial Forklift	1.5 Million	$50.00	3.20%	320
Industrial Robots		$75.50	4.84%	484
Industry Machinery with Wheels Misc			0.00%	0
Tanks (Armored Heavy)		$11.60	0.74%	116
Fighter Jets		$40.20	2.58%	258
Shipyard Crane		$12.60	0.81%	81
Shipyard misc		$8.70	0.56%	56
Total		$1,560.96 Billion		
		In Billion		

Appendix Table 1





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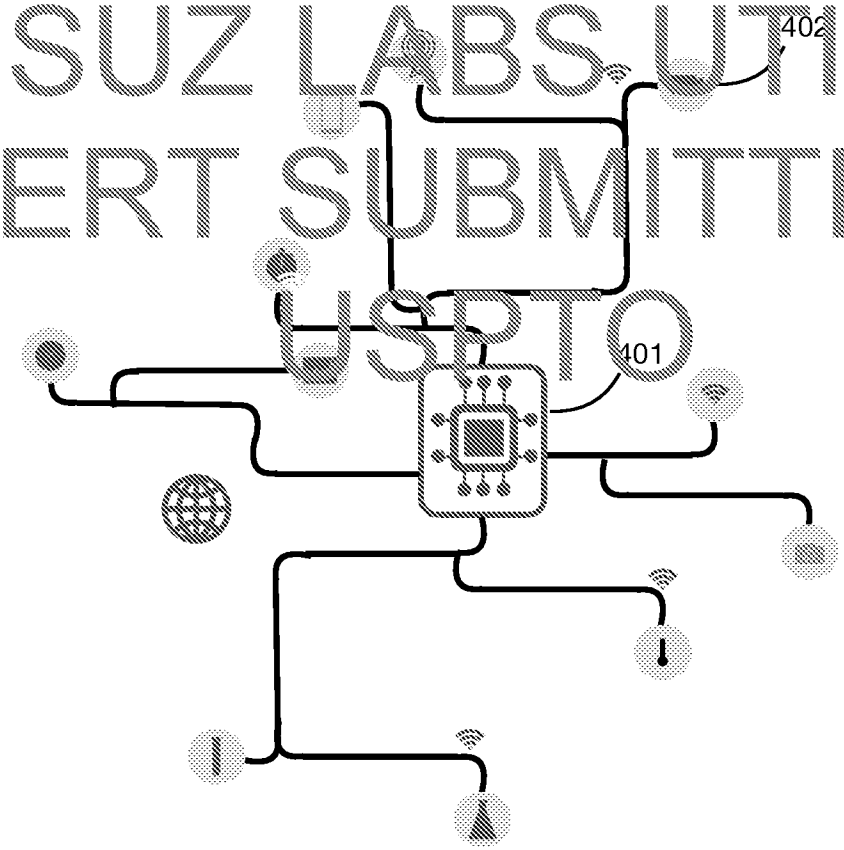

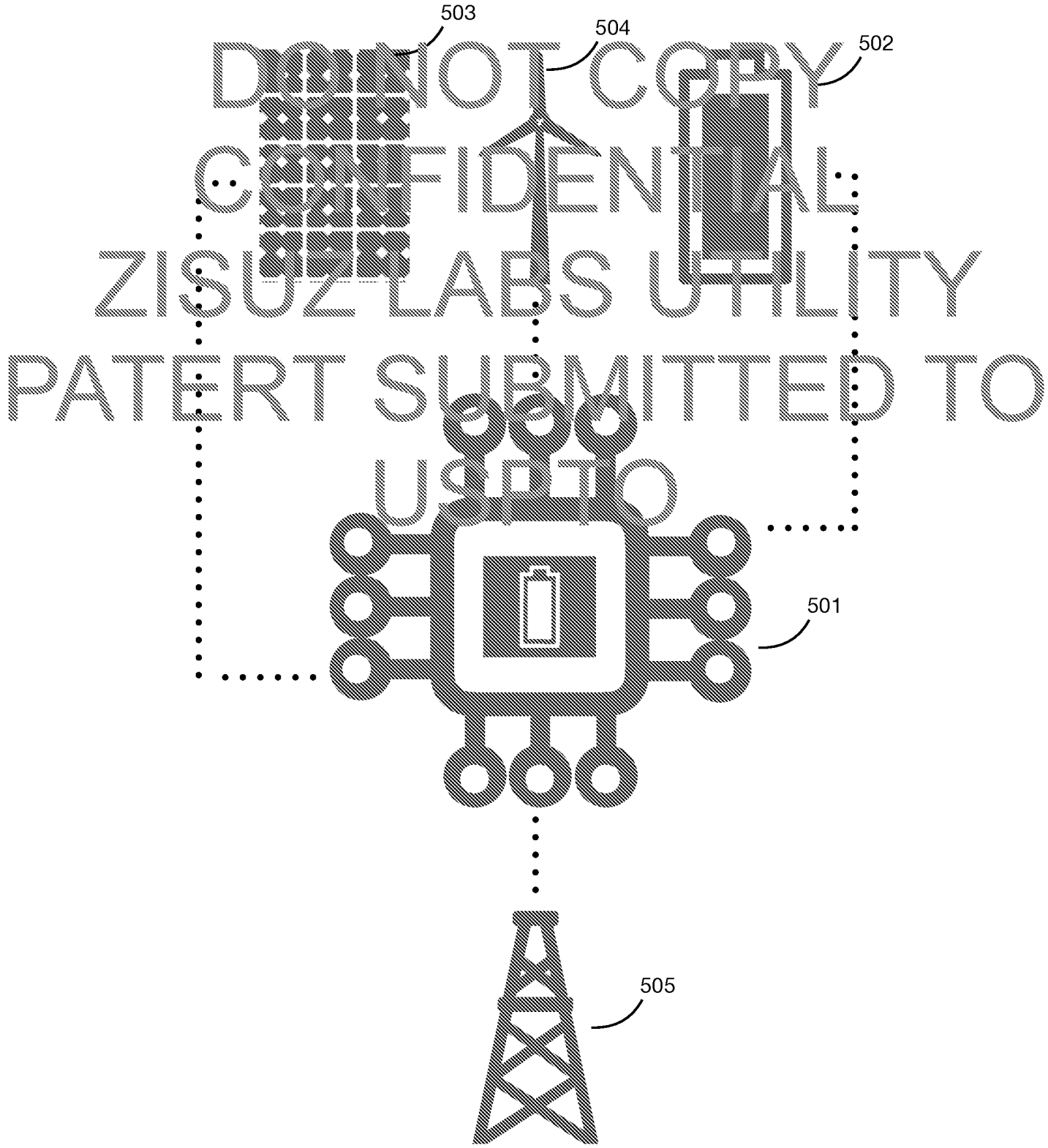
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