TRISYMBIOTIC IP

Report 2

By

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Inventor

The Trisymbiotic Patent Portfolio comprises three patents, each with a unique aim for data centers and high-performance computing. The goal of each patent is to conserve energy or to multiply the use of energy in computing. The technologies emphasize the use of power within the systems that use data centers and high-performance computers, also known as supercomputers. For data centers, the aim is to reduce the Power Usage Effectiveness, which is the typical ruler of their overall performance in terms of energy use. High-performance computing, the measurement is the number of floating-point operations per second per watt input, also known as FLOPS per watt. Although the portfolio is small, its simple goals are power use performance and the overall ratio of energy use.

Intellectual Property Portfolio

The Trisymbiotic Patent Portfolio, comprising three patents, provides the two computer markets with flexibility in utilizing power and energy to achieve higher efficiency levels than what is currently available in global markets. By employing this patent portfolio, users can compete with global players on equal footing, even if they are countries.

This patent portfolio grants users the opportunity to conserve energy or to multiply the use of energy in computing, emphasizing power usage within data centers and high-performance computers. The portfolio's aim is to reduce the overall performance ruler of energy use in data centers, the Power Usage Effectiveness, while the measurement for high-performance computing is the number of floating-point operations per second per watt input, commonly referred to as FLOPS per watt.

The strategic use of these patents enables users to compete with global players and maintain their market position while simultaneously advancing technology at a global level. This portfolio serves as a tool to gain market share in the global 5G markets, as well as other sections of the market, such as video streaming, audio streaming, data, and the Internet. It also allows users to establish a foothold in the M2M automated global markets.

In conclusion, the Trisymbiotic Patent Portfolio provides users with the ability to compete globally, even against countries, by utilizing power and energy more efficiently. This patent portfolio helps businesses advance technology and maintain their market position in various sectors of the market while also gaining a foothold in emerging markets.

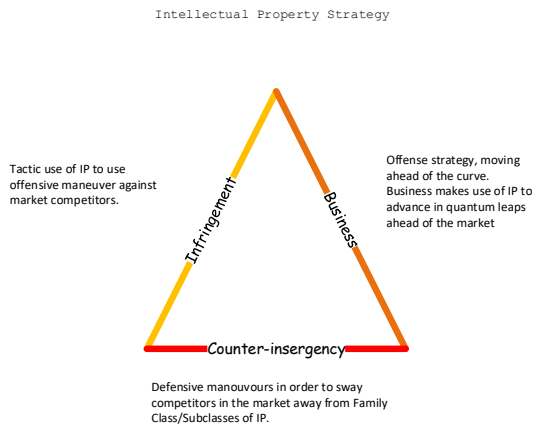

Figure 1 - Intellectual Property Strategy., Gravina, Matteo B.

The tactical use of the Trisymbiotic Patent Portfolio offers the advantage of utilizing time to outperform the competition. This monopoly of time not only allows for the demonstration of the technology ahead of competitors, but also enables the introduction of evolving technologies.

On the offensive front, the triad patent portfolio can monopolize the market. The portfolio's aim to gain a market share of the global 5G markets shifts the user of the portfolio into other sections of the market, including video streaming, audio streaming, data, and the Internet. It also provides an opportunity to gain a foothold in the M2M automated global markets.

In a defensive or counterinsurgency stance, the tactic is to maneuver against adversaries. The individual affirmations of the patents, along with the overall aspect of the intellectual property, including the use of the class and subclasses, allow for easy obstruction of challengers. The patents reduce competition to maintain market position while advancing technology at the global level.

In conclusion, using intellectual property strategy to thwart infringement enables a business to progress beyond the competition and obstruct competitors from competing at the same level.

Technology

The intellectual property portfolio facilitates the user to use current techniques with pre-made hardware. Therefore, the technologies could evolve with the same building designs for decades.

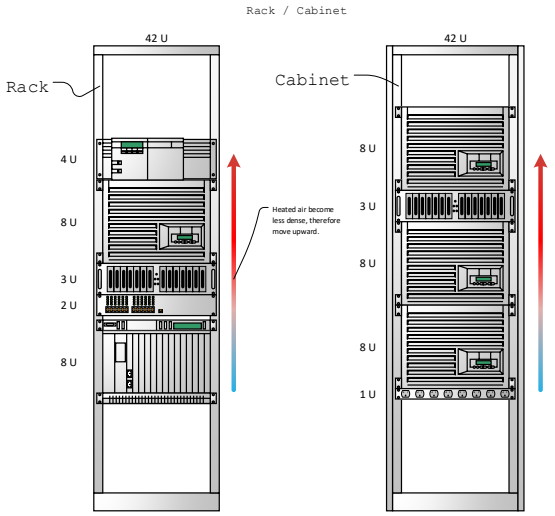

Figure 2 - Rack and Cabinet., Gravina, Matteo B.

The intellectual property portfolio enables users to employ current techniques with pre-made hardware, allowing for technological evolution while utilizing the same building designs for decades. These technologies still make use of servers and associated devices in the same horizontal array, with the stacking of servers on a rack or cabinet being a convenient method for technicians. The cabinet designs facilitate stacking of servers, universal power supplies, and drive servers mostly on 42-unit racks, which is the standard for most data centers.

However, stacking servers on top of one another is not a viable deployment method because of the laws of physics. The conduction of electricity on the electronics of the servers and associated

devices produces heat, which becomes inconvenient when stacking servers. The heat generated from stacked servers can cause overheating, reducing efficiency and the lifespan of the hardware.

In conclusion, the intellectual property portfolio provides users with the ability to use current techniques with pre-made hardware, enabling technological evolution with the same building designs for decades. While stacking computer network servers on racks is a convenient method for technicians, the laws of physics make it inconvenient because of the heat generated from the conduction of electricity on the electronics of the servers and associated devices. Therefore, alternative deployment methods must ensure maximum efficiency and hardware lifespan.

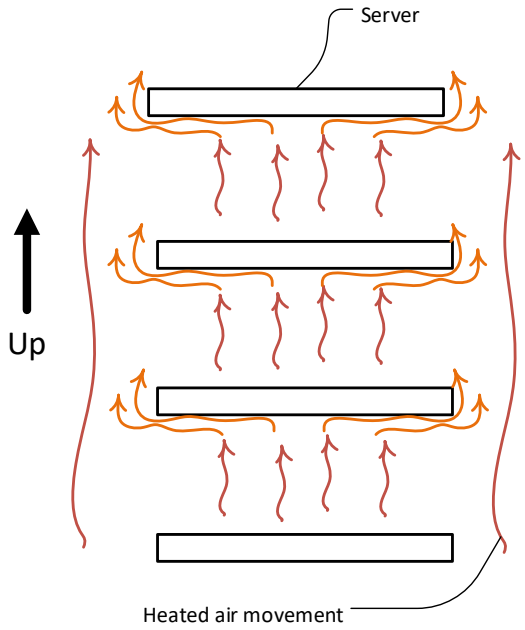

Figure 3 - Heated Air Movement., Gravina, Matteo B.

Stacking servers without proper fanning would allow warm air to move through the path of least resistance. As warm air moves upward, the orifices of the server act as viaducts for air movement. Since heated air at the molecular level is less dense, it seeks the path of least resistance and always moves up.

To counteract heat accumulation inside the server, fanning is necessary to move the hotter air out of the server and onto a duct system attached to CRAC (computer room air conditioning) systems. Multiple fans are needed per server when servers are horizontally placed. At the core of the server are central processing units that heat as workloads are added to the machines. Most servers have multiple fans at the far end of the server to expedite the removal of hot air from the server.

Proper fanning and cooling systems are essential for data centers to maintain maximum efficiency and prolong the lifespan of their hardware. Without adequate fanning and cooling, overheating can occur, leading to hardware failures and reduced efficiency. In conclusion, the use of fanning is necessary to expel hot air from the server, and it must implement proper cooling systems to prevent overheating and prolong hardware lifespan.

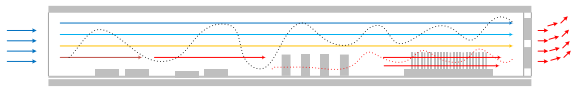

Figure 4 - Server., Gravina, Matteo B.

The innovative designs of servers without cases allow users to align them vertically, which facilitates the upward movement of heat with minimal resistance compared to horizontally aligned servers. Servers without cases enable more servers to accommodate in the same volumetric space, resulting in denser racks that enhance the throughput of the data center and increase the heat generated per cubic meter of space.

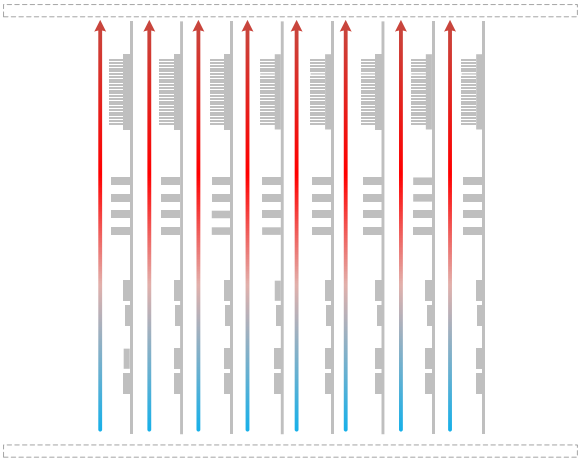

Figure 5 - Vertical Servers., Gravina, Matteo B.

This integration also ensures continuity in the movement of heated air at the outer walls of the silos and allows chilly air to move faster into the space between the servers from below. As long as the servers generate heat without cases, the perpetual motion of events started at the rack-server location is assisted by the surrounding low temperatures coexisting at elevations around the heat exchanger. Waste heat from external sources perpetuates the cyclical cycle indefinitely if one location generates heat and another location lacks warmth.

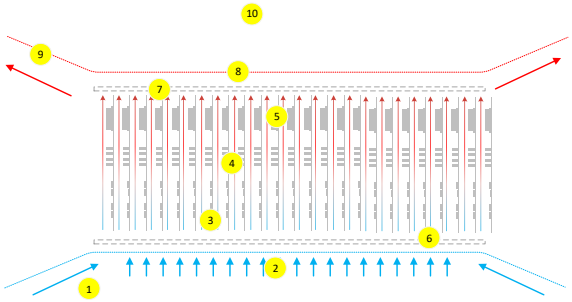

Figure 6 - Rack Server., Gravina, Matteo B.

In addition, the absence of cases on servers allows for faster movement of cold air from below to the space between the servers. This, coupled with the upward movement of hot air, creates a perpetual motion of events that originates at the rack-server location and is further assisted by the surrounding low temperatures in the vicinity of the heat exchanger. Waste heat from outside sources can also contribute to the cyclical cycle, creating a perpetual motion as long as there is a temperature differential between locations.

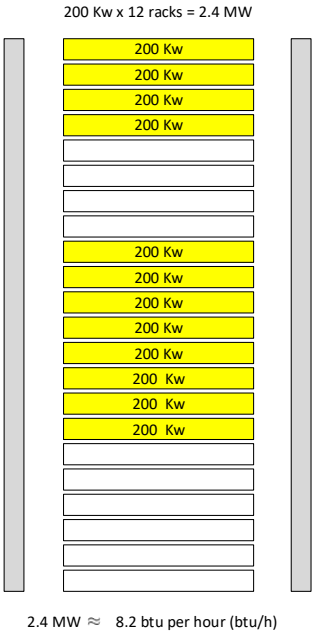

Figure 7 - Silo Racks., Gravina, Matteo B.

The silo design, unlike a horizontal data center room with a raised floor, comprises racks with multiple servers running at around 10-35 kilowatts. Because of its architecture, the silo design allows for a much higher density per rack. For example, Figure 7 shows that the distribution of 200 kilowatts per rack would dissipate the heat to the sides without compromising the operation of the servers above.

Fossil Fuels

"It took millions of years of sunlight to create 50 quintillion Btu of energy ever produced, lost in

time through seepage and now in reserve. The 2,000,000 quintillion Btu of sunlight that led to our fossil fuels is forever finite. In a short period, we have been using fossil fuels without regard for alternatives, despite our constant population growth. Instead of relying solely on gasoline and coal for electricity, humanity and the planet could gradually transition to using solar energy. Unfortunately, arrogance and greed may lead to an excruciating chain reaction in a few years, affecting countries such as China, Russia, the EU, India, and Brazil. Experts are uncertain about the impending effects that will occur in a few years, rather than in 2100."

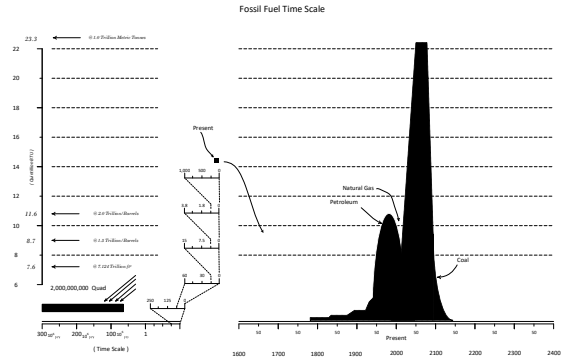

Figure 8 - Fossil Fuel Time Scale., Gravina, Matteo B.

According to Figure 8, the Fossil Fuel Time Scale, we are running out of time. Fossil fuels are so deeply embedded in our society that their decline will have a *"Butterfly Effect,"* entangling events around the world.

Despite this, world oil producers continue with business as usual, producing petroleum and exporting it to consuming countries. The West is also negligent in mining for petroleum, which is even worse than traditional oil extraction from the ground. China is burning coal relentlessly, with no foreseeable end to the growth acceleration in consumption.

If China, Russia, Saudi Arabia, the United States, Canada, and Australia continue with business as usual and assume that African or South American countries will endure the consequences, they have another thing coming. The effects of fossil fuel consumption are just around the corner and will not wait until the year 2100.

Social Development

The chemical composition of the atmosphere is changing, and humanity is causing an imbalance of chemicals on the planet. This is affecting the atmosphere, the Earth, and the oceans, and we are violating the natural laws of the planet. As a species, we are directly responsible for increasing the carbon levels, which will eventually lead to the melting of the oceans and land masses of methane.

The rapid deployment of 5G technology and the uncontrolled growth of Video-on-Demand (VOD), along with China's contribution to the global carbon sink, are putting an enormous amount of stress on the environment, pushing it closer to the point of no return (PNR). Despite being aware of the harmful effects of overproduction of Carbon Dioxide and the existing amount of it in the atmosphere and oceans, many groups are continuing with business as usual. Rather than decreasing, the rate of Carbon Dioxide and other particulates is increasing at an alarming rate.

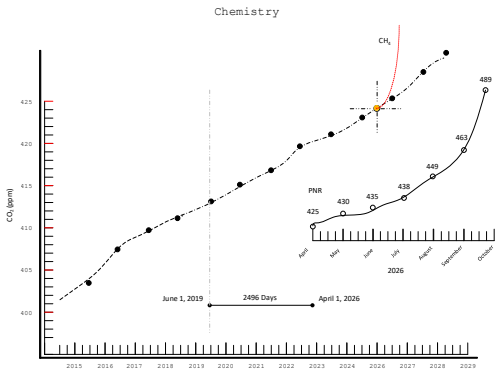

Figure 9 - Chemistry

Source: Matteo B. Gravina. U.S. Standard Atmosphere, United States Committee on Extension to the Standard Atmosphere., National Oceanic and Atmospheric Administration., 1976. Cooperative Global Atmospheric Data Integration Project. *Multi-Laboratory Compilation of Atmospheric Carbon Dioxide Data for the Period 1957-2017; obspack_co2_1_GLOBALVIEWplus_v4.2_2019-03-19*. NOAA Earth System Research Laboratory, Global Monitoring Division, 2018, doi:10.25925/20190319. Game theory 1, Gravina.

Energy Taxonomy

Theory behind the basis of operation lies in the logic of the heat engine. Principle relies on thermal energy, which converts to chemical energy, and then to mechanical energy. Thermodynamic laws that allow the concept to work come from the basic understanding of utilizing the differences between a location where the temperatures are cold and another area where the temperature is hot. Classical Carnot Heat Engine is the core behind the operation of the concept.

The available potential power dispersed in a period enables us to use it for work. In comparison, the lack of thermal energy on high elevations, in contrast to the high value of a data center working 24/7/365 at 100%, is relatively tiny. Therefore, the practical value of the triad is in the ratio of 1000:1, making it a force multiplier.

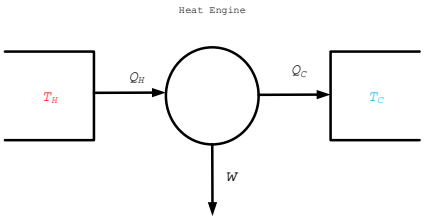

Figure 10 - Heat Engine., Gravina, Matteo B.

The simplest explanation of how the heat engine works in relation to U.S. Patent 9,510,486 B1 [Inventor: Gravina] is that heat accumulates onto a thermal line (2) and moves upward towards a heat exchanger (3) in a closed-loop environment. The cycle then repeats itself.

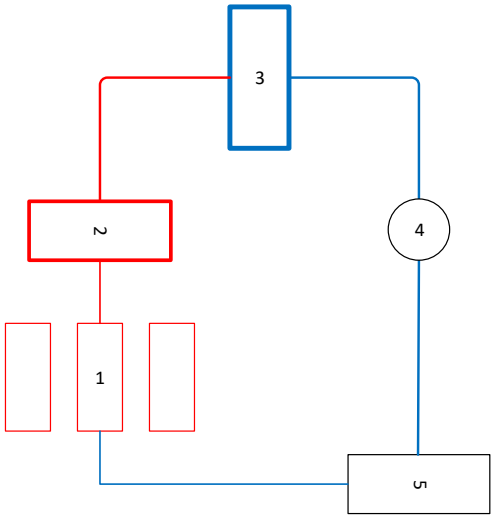

Figure 11–U.S. Patent 9,510,486 B1

Source: Gravina, Matteo B. Data center cooling system having electrical power generation. U.S. Patent 9,510,486 B1, United States Patent and Trademark Office, November 29, 2016. *http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9510486.PN.&OS=PN/9510486&RS=PN/9510486*

In theory, as long as the silos produce heat (1) and it accumulates at the thermal line (2), with a temperature differential at an elevated distance to the heat exchanger (3), an air current with high pressure will move in a cycle. Unless they cease computing and stop producing heat, the system will eventually cease to exist as a working system, resulting in heat death.

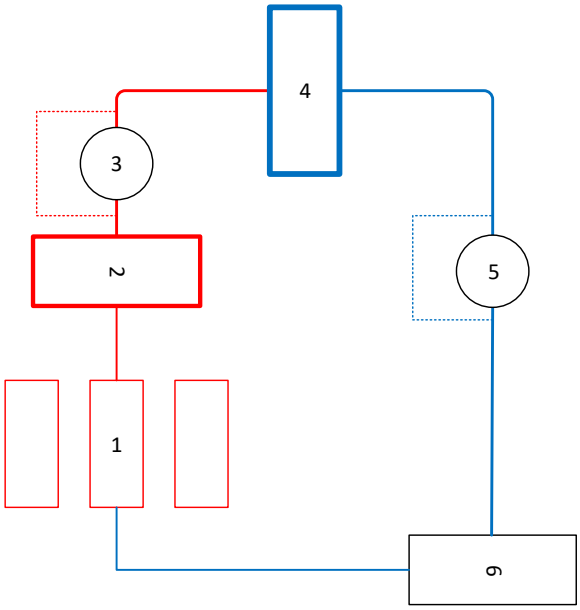

Figure 12–U.S. Patent 9,907,213 B1

Source: Gravina, Matteo B. Data center cooling system having electrical power generation. U.S. Patent 9,510,486 B1, United States Patent and Trademark Office, February 27, 2018. *http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9907213.PN.&OS=PN/9907213&RS=PN/9907213*

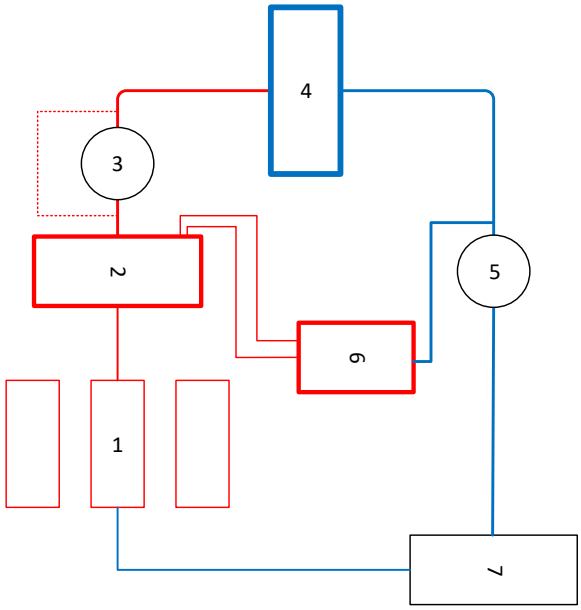

Figure 13–U.S. Patent 10,020,436 B1

Source: Gravina, Matteo B. Thermal energy accumulator for power generation and high-performance computing center. U.S. Patent 9,510,486 B1, United States Patent and Trademark Office, July 10, 2018. *http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=10020436.PN.&OS=PN/10020436&RS=PN/10020436*

Regarding U.S. Patent 9,907,213 B1, a thermal energy conveyor (3) is used to move energy from the silos (1) actively. This allows for the rapid movement of frigid air from a heat exchanger (4) to supplement the heated air at the silos. When the thermal energy conveyor (3) is not active, the thermal energy converter (5) converts kinetic energy into power, which is then brought back to the data center to reduce power usage effectiveness.

The invention of U.S. Patent 10,020,436 B1 supplemented and complemented the previous steps in U. S Patent 9,510,486 B1, and U.S. Patent 9,907,213 B1 with further steps, not only using waste heat from within but also from outside the system. When using waste heat from outside the system, and under ideal times, the data center may experience a *negative power usage effectiveness*. The effect can only happen when T_C and T_H are complementary opposites, and a third system, T_H^3 supports T_H. With T_C at a rate of million to 1 to T_H+T_H^3, any value of T_H and T_H^3 become supplementary and therefore allows for a *force multiplication* of energy extraction.

https://apps.dtic.mil/sti/citations/ADA333462

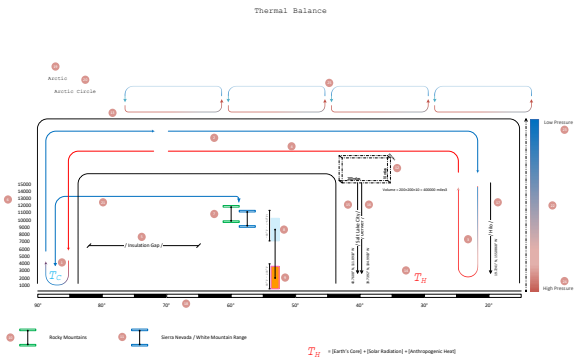

Figure 14 - Thermal Balance

Source: Matteo B. Gravina. United States Weather Bureau, United States Air Force, National Aeronautics and Space Administration, "U.S. STANDARD ATMOSPHERE, 1962." ICAO STANDARD ATMOSPHERE TO 20 KM, PROPOSED EXTENSION TO 32 KM, TABLES AND DATA TO 700 KM; U.S. Geological Survey, EarthExplorer - Home, Department of the Interior/USGS, June 2019, https://earthexplorer.usgs.gov/. Game theory1, Gravina.

The atmosphere aids the principles and laws behind the concepts, but it is the climate that controls most of the working conditions to come into effect. The vast differential in temperature between the North Pole and the South Pole keeps the thermal balance of the environment in check by maintaining low temperatures at high elevations and elevated temperatures at low elevations and lower latitudes. In Figure 14, Thermal Balance, any change in temperature at high altitude on mountain ranges thus influences the poles, and vice versa.

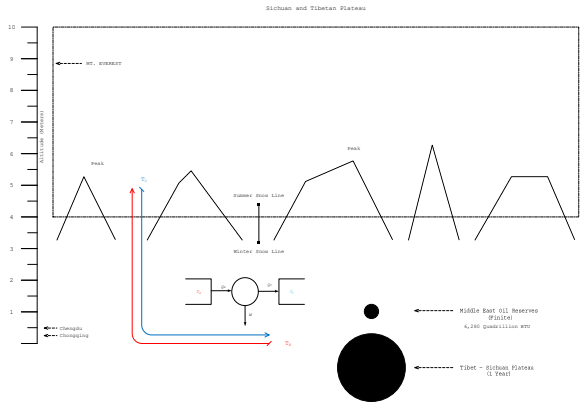

Figure 15 - Sichuan and Tibetan Plateau., Gravina, Matteo B.

Illustration of high elevations near data centers allows for the concepts to thrive. For example, the amount of energy at the Sichuan-Tibetan Plateau exceeds the potential energy available in petroleum reserves estimated in the Middle East. With an extreme level of T_C in the Sichuan-Tibetan Plateau compared to probable Sichuan area data centers, it is close to impossible that even with the Sichuan Valley Triad of Chengdu, Nanchong, and Mianyang, contributing 500 megawatts in data center activity, the activity wouldn't make a dent to T_C.

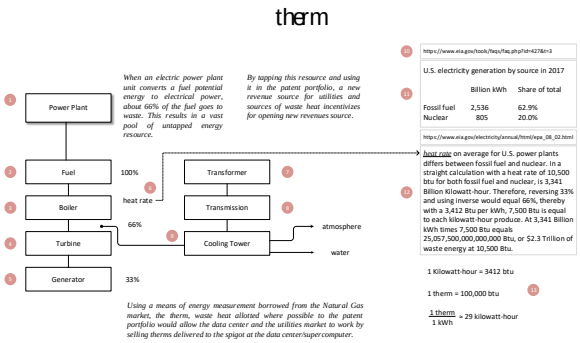

Figure 16 - therm

Sources: Energy Information Administration. "What is U.S. electricity generation from energy source?" U.S. Department of Energy, March 1, 2019, https://www.eia.gov/tools/faqs/faq.php?id=427&t=3; Energy Information Administration. "Table 8.2. Average Tested Heat Rates by Prime Mover and Energy Source, 2007–2017 (Btu per kilowatt-hour)," September 12, 2018, https://www.eia.gov/electricity/annual/html/epa_08_02.html; Gravina, Game theory 1.

In Figure 16, *therm*, T_H^3, the third system, explains the use of waste heat coming from an industry in the United States of America, which is well known for inefficiency. When converting fossil fuels from mechanical to electrical wastes, a lot of energy, around two-thirds, is waste heat. Although not all the waste heat is extractable, some power plants, whether from fossil fuel or other, could connect to data centers nodes that would contribute to the overall efficiency of the power plant itself, as *2/3* of the waste energy could provide to some area. The tapping of the utility plant to a data center node would make the plant gross efficiency above *1/3* to *4/5* efficient.

Geography

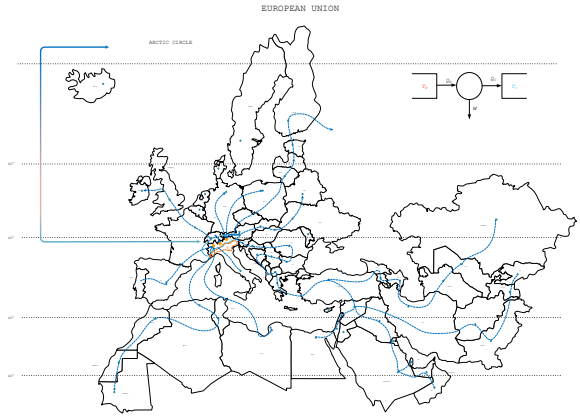

Figure 17 - European Union., Gravina, Matteo B.

Positioning is paramount in allocating data center nodes. The European Alliance has an exceptional area on the southern side of the Alpine Mountains. The Italian Alps are an excellent choice because of their location, with manmade heat sources and year-long conditions of high elevations. This area permits connectivity in the middle of the European Common Market. Submarine cable lines are nearby, rendering this location unique.

Besides adding to the European markets, the area is also helpful to Eastern Europe, the Middle East, and North Africa. This opportunity eliminates the need for these regions to build power plants and data centers that are inefficiently combined.

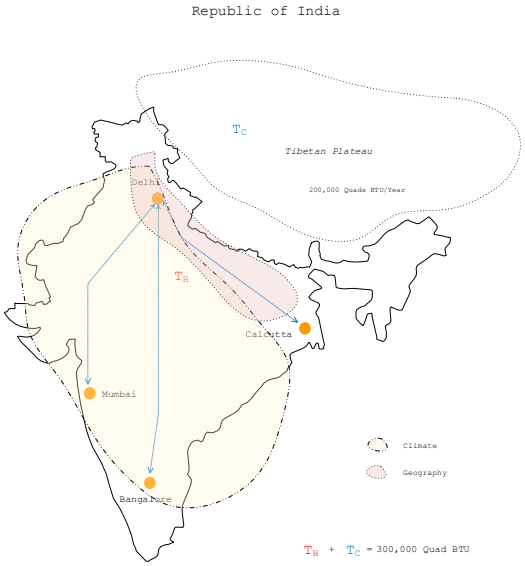

Figure 18 - Republic of India., Gravina, Matteo B.

India's advantage of its location in proximity to large T_H land mass and high attribute of T_H^3 heat mass from its population. But the great advantage that India has is its proximity to the T_C Tibetan Plateau. It shares with China the frigid temperatures of the Tibetan Plateau year long.

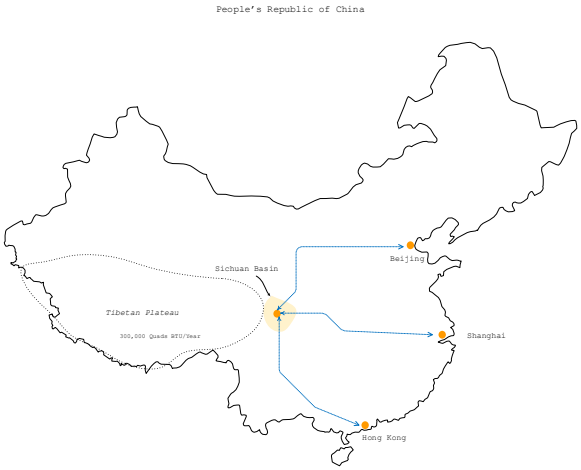

Figure 19 - People's Republic of China., Gravina, Matteo B.

China has an outstanding and unique location in the Sichuan Basin, home to three grand cities. This area has the potential to develop into the Silicon Valley of Data Center Nodes and High-Performance Computing. With a networked triad in the Sichuan Basin, the region can provide not only China with 5G, IoT, Data Center, and HPC capabilities, but also serve as Asia's Global Node.

By serving as Asia's Global Node, China can make up for other nations' shortcomings in M2M, IoT, VOD, and other areas. This would allow neighboring countries to rival the internet connectivity of more advanced nations. By giving the Sichuan Triad the license to serve Asia, cities like Lao's can be on the same level as Beijing and Berlin in terms of internet connectivity, M2M, and self-driving cars.

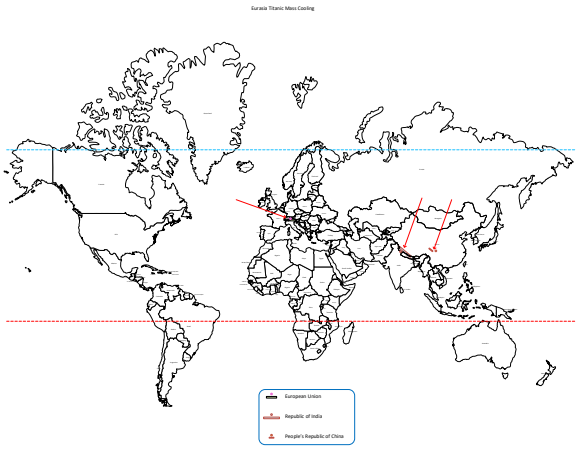

Figure 20 - Eurasia Titanic Mass Cooling., Gravina, Matteo B.

Three locations from the European Alps to the Tibetan Plateau offer excellent climatic conditions and anthropogenic influence. The Italian Alps, India-Tibet Plateau, and the Sichuan Basin-Tibet Plateau region could handle global traffic for centuries to come.

From petabytes to zettabytes, eventually developing into yottabytes, internet traffic with energy can easily become eco-friendly with these three locations. Within this century, global traffic through these three node regions could accommodate the globe, leading to space traffic. Energy is the foundation for transforming the planet into environmentally friendly developing markets.

We can accommodate trillions of IPv6-MAC64 Earth-Space systems by increasing the traffic's performance ratios of floating-point operations per watt.

Figure 21 - South America & Caribbean., Gravina, Matteo B.

The North American region can serve as a hub for the South American and Caribbean regions. In South America, it is wise to interconnect the two continents with undersea cables. By tapping into the global high-speed internet connection, South America will have high-speed, advanced technology infrastructure parity with developed

nations. Countries like Bolivia could have high-speed, full interconnectivity infrastructure with countries like South Korea and Germany.

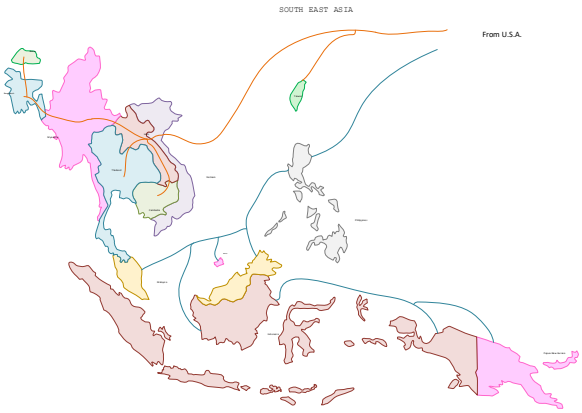

Figure 22 - South East Asia., Gravina, Matteo B.

An alternative to the Sichuan Basin Triad IOT Node Centers is the Southeast Asia region, which has direct links to North America. With a 100-exabyte connection to U.S. Node Centers, Southeast Asia countries could complement all their wireline and wireless traffic.

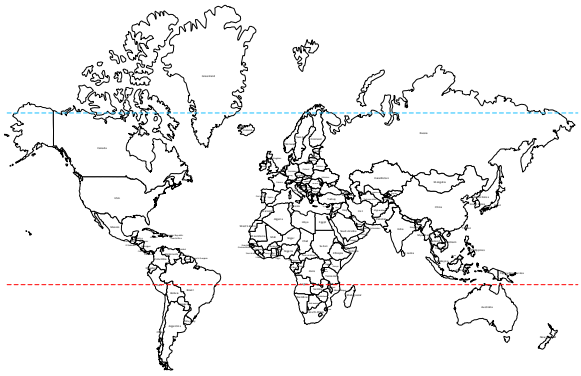

Figure 23 - IOT Global Highway., Gravina, Matteo B.

Revised: With most of the population living north of the Equator, the 5G/IOT global highway can seamlessly link with the world's node centers. Eventually, the Global Net will become eco-friendly without relying on fossil fuels. These regions, between the blue and red lines, have an ideal alignment with local climatic conditions. However, as anthropogenic influence concentrates in these areas, unique challenges may emerge. Despite these challenges, these geographic locations provide minimal hindrance to using their helpful benefits for node centers.

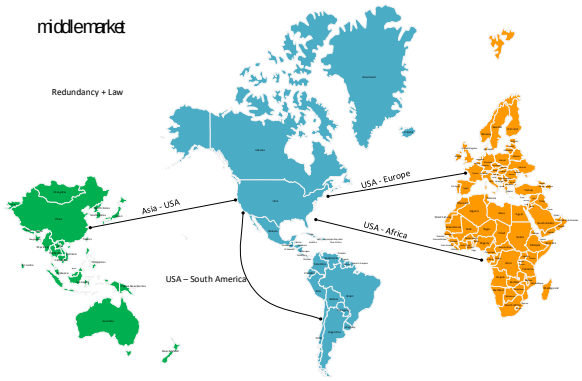

Figure 24 - Middle Market., Gravina, Matteo B.

The middle market of the world’s internet traffic is the United States. With top tier nodes and unique geography, on top of a free market system, the U.S. may serve as the significant server provider of the internet Earth-Space system.

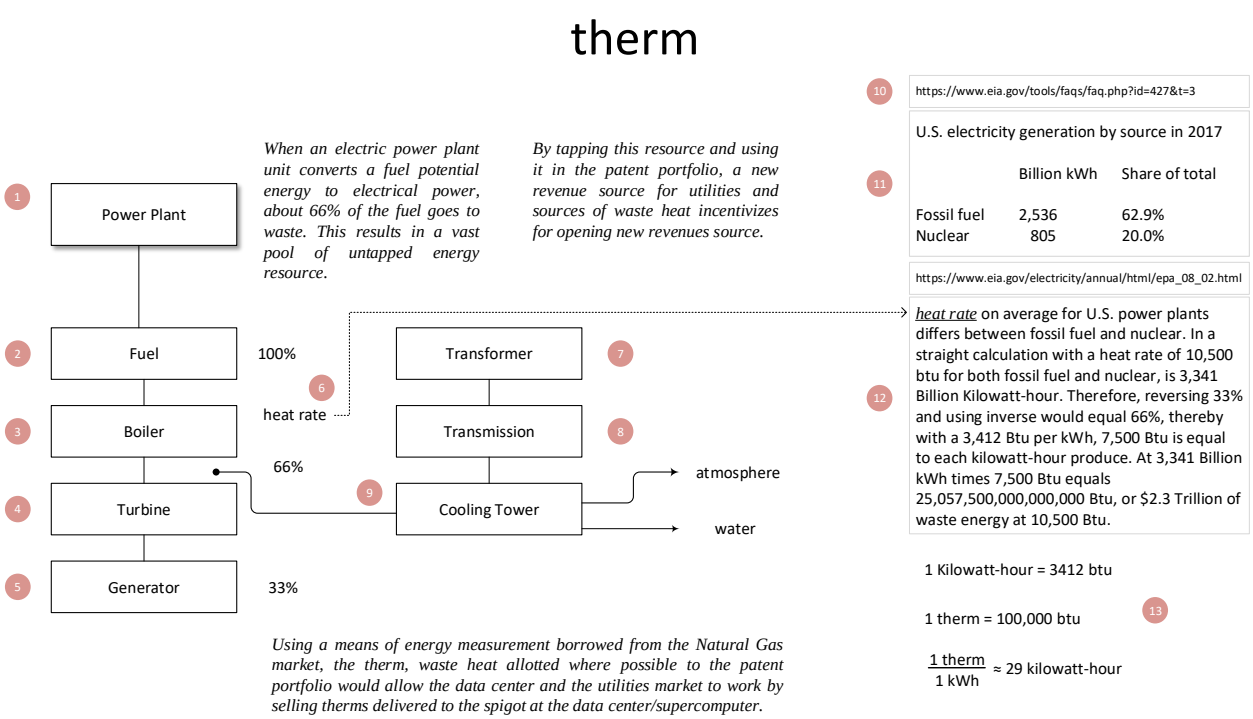

Figure 16.1–*therm*

Sources: Matteo B. Gravina. Energy Information Administration. ***"What is U.S. electricity generation from energy source?"*** U.S. Department of Energy, March 1, 2019, https://www.eia.gov/tools/faqs/faq.php?id=427&t=3; Energy Information Administration. "***Table 8.2. Average Tested Heat Rates by Prime Mover and Energy Source, 2007–2017 (Btu per Kilowatt-hour),"*** September 12, 2018, https://www.eia.gov/electricity/annual/html/epa_08_02.html; Gravina, Game theory 1.

Therm Description

1) Power Plant–Electric utility plant that produces electricity.
2) Fuel–Nuclear, renewable, and fossil fuels used to produce electricity.
3) The power plant uses fuel to boil water in the boiler.
4) Turbine–Turbine use by steam to turn a generator.
5) Generator–Generates electricity.
6) Heat Rate–Efficiency of the process to produce electricity from fuel.
7) Transformer–An electric power up-converter or down-converter.
8) Transmission–Process of transmitting electricity long distances.
9) Cooling Tower–Water cooling tower used to cool down steam back to liquid.
10) Citation–U.S. Government website use for statistical data.
11) Electricity Generation–U.S. electrical power generation from all sources.
12) Heat Rate Calculation–Calculation based on data gained from Energy Information Administration.
13) Arithmetic–Calculation.

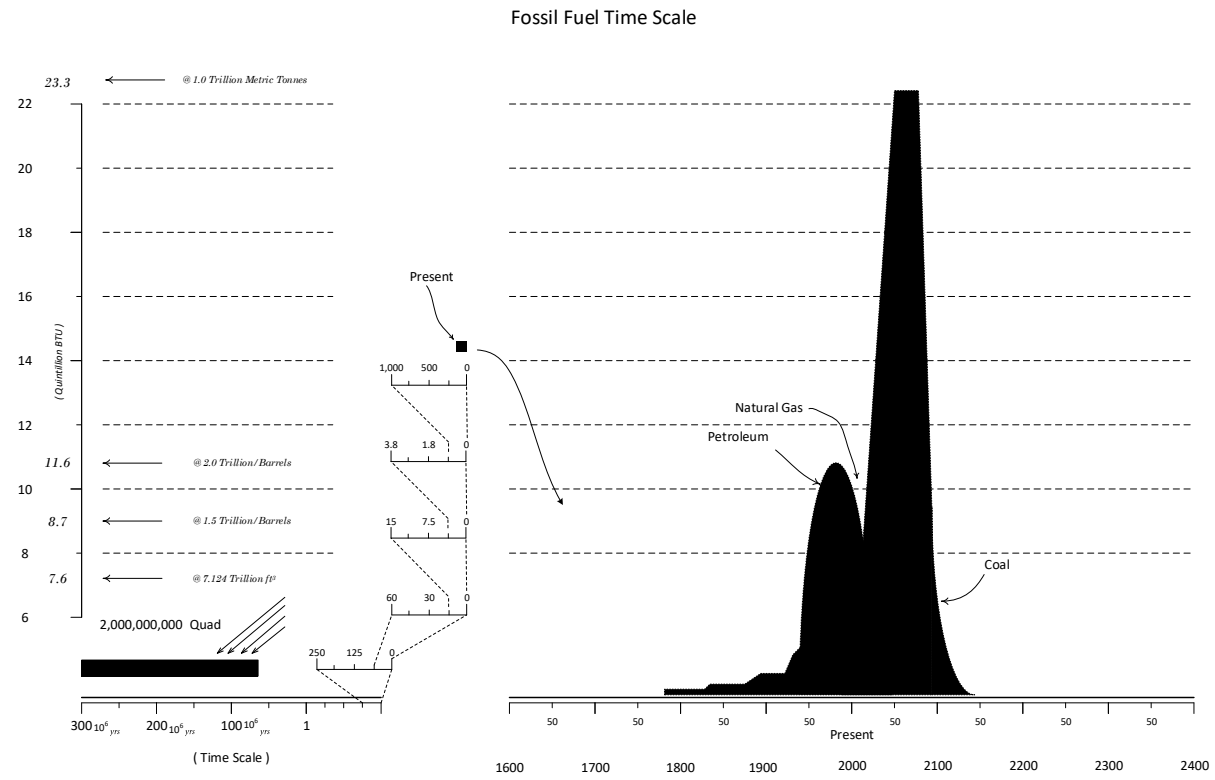

Figure 8.1 - Fossil Fuel Time Scale

Source: Matteo B. Gravina, raw data sets, EIA.

The Fossil Fuel Time Scale refers to the rate of creation of fossil fuels during a particular period and the current rate of reserves. The left side of Figure 8.1 shows the Time Scale, which represents the time and energy required to create all fossil fuels. Plants and animals formed fossil fuels during the period from 300 to 90 million years ago. We estimated the amount of sunlight that fueled plant and animal growth during this period at 2 quadrillion Btu. This energy source lasted for 210 million years.

As time progresses, the Time Scale reduces in time brackets to the present day, including our industrial age that began in the 18th century. The Present Day time scale enables us to see how limited our reserves are and how quickly they are diminishing, even within a single human lifetime.

On the left side of the chart, we measure the calculated reserves in quintillion Btu. Since natural gas measured in cubic feet, the estimated reserves are 7.124 quintillion Btu, not 7.124 quintillion cubic feet. I do this measurement compared to fossil fuels only.

The analysis for oil reserves estimated at 8.7 quintillion Btu, with an estimated reserve of 1.5 trillion barrels of oil. However, experts in this field are so diverse in agreement that a second measurement suggests a reserve of 11.6 quintillion Btu and an estimated reserve of 2 trillion barrels.

Finally, coal has the highest level of reserves, with a calculated reserve of 23.3 quintillion Btu and an estimated reserve of around 1 trillion metric tons.

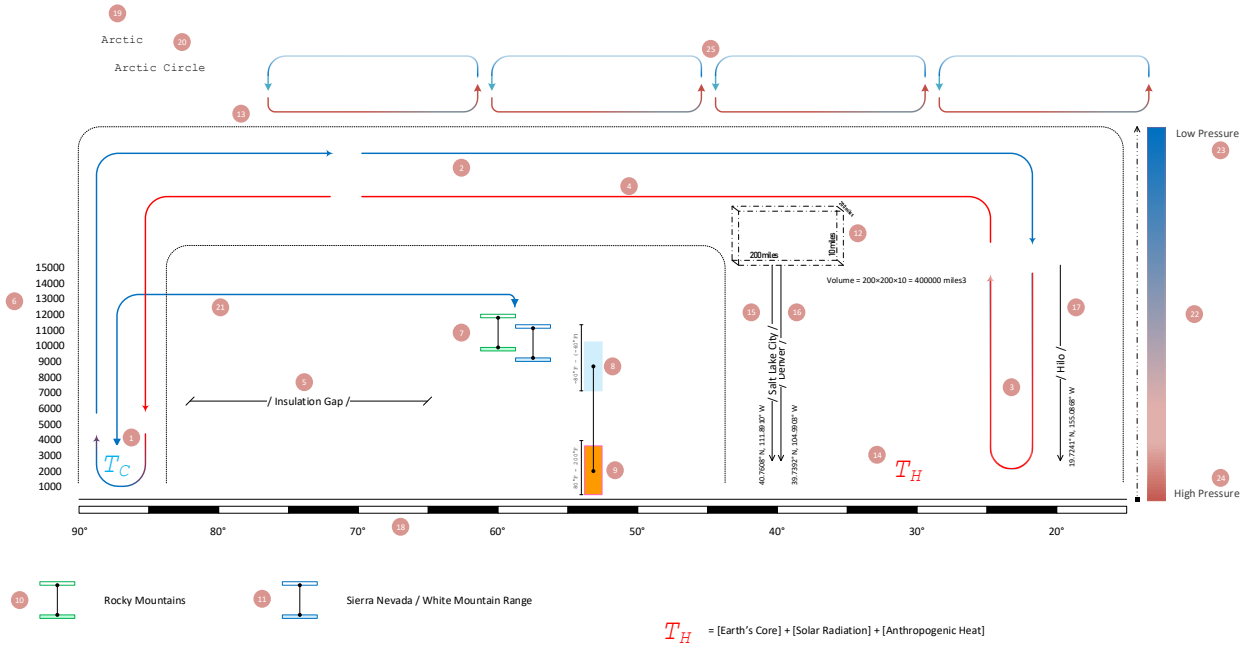

Figure 14.1 - Thermal Balance

Source: Matteo B. Gravina. United States Weather Bureau, United States Air Force, National Aeronautics and Space Administration, ***"U.S. STANDARD ATMOSPHERE, 1962." ICAO STANDARD ATMOSPHERE TO 20 KM, PROPOSED EXTENSION TO 32 KM, TABLES AND DATA TO 700 KM***; U.S. Geological Survey, EarthExplorer - Home, Department of the Interior/USGS, June 2017, https://earthexplorer.usgs.gov/. Game theory1, Gravina.

The balancing act between our planetary latitudes [17] is static concerning climate, dynamic with weather. The laws of physics stay constant all over the planet; and, therefore, allows us with certainty how the three-patent portfolio will work. The temperature cold [1] of the Arctic [19] has in reserve the lack of energy around the Arctic Circle [20]. An insulation gap [5] exists between the distances, although the temperature cold [1] does influence [21] through high elevations [5], even at lower latitudes [17]. Cold air [2] moves to the lower latitudes [17], of which thermally does influence by warm air [4] trying to diverge to the Arctic Circle [20], but entropy does not allow it to happen. With upper air circulation [25], the range-of-influence [13] populations such as Salt Lake City, Utah, USA, Denver, Colorado, USA [16], and Hilo, Hawaii, USA [17]. Heat [3] tries to travel to colder regions, but with elevation [6], the thermal gradient [22], influences the temperature with high pressure [24] at lower areas, and with lower pressure [23], the temperature remains cold.

The cold temperature [21] from high latitudes and elevations influences how the Rocky Mountains [10], and Sierra Nevada–White Mountain Range [11], freezing regions [5] affect the systems heat exchangers [8], which are fed by heat from the silo's [9]. The Rocky Mountains, Sierra Nevada–White Mountain Range, and freezing regions contribute external heat to the patent portfolio's thermal energy, adding extra energy from outside the systems. A volumetric area [12] between Salt Lake City, Utah to Denver with calculated elevation above fifteen-thousand feet with two hundred miles sides and an altitude of ten miles has more energy in wait than the USA oil reserves.

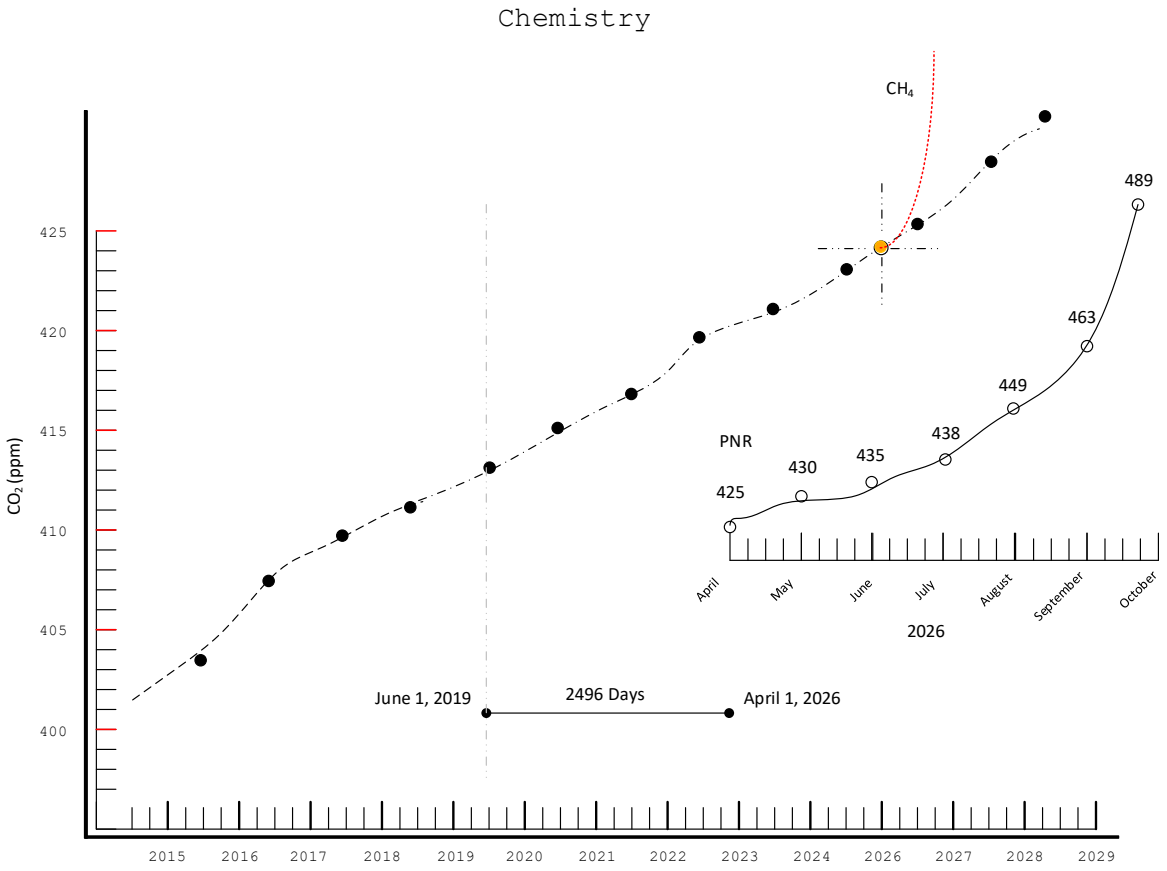

Figure 9.1–Chemistry

Source: Matteo B. Gravina. U.S. Standard Atmosphere, United States Committee on Extension to the Standard Atmosphere., National Oceanic and Atmospheric Administration., 1976. Cooperative Global Atmospheric Data Integration Project. ***Multi-Laboratory Compilation of Atmospheric Carbon Dioxide Data for the Period 1957-2017; obspack_co2_1_GLOBALVIEWplus_v4.2_2019-03-19***. NOAA Earth System Research Laboratory, Global Monitoring Division, 2018, doi:10.25925/20190319. Game theory 1, Gravina.

"It's all about chemistry." The chemical composition of our atmosphere, lithosphere, and oceans is changing for the worse. Ironically, we can do something about it, but human arrogance and greed will lead nature to take a stand. The remaining days are counting down to a point-event, which will lead us to the point of no return (PNR). The measure of the amount of human contribution to the carbon dioxide in the oceans and atmosphere is increasing, which will cause the kingdoms of the planet, particularly humans, to reduce in scale.

Data centers and electronics have an ever-increasing influence on carbon displacement in the atmosphere. Within the next decade, all kingdoms of the planet will suffer the consequences. The measure of carbon dioxide molecules in parts per million, displayed on the left side of the chart, will rise to a specific level within the chart, whereby carbon dioxide readings will shoot up in weeks, what took decades to increase. According to the timetable within the chart, starting from June 6, 2019, to April 1, 2026, we have 2496 days to evade the PNR.