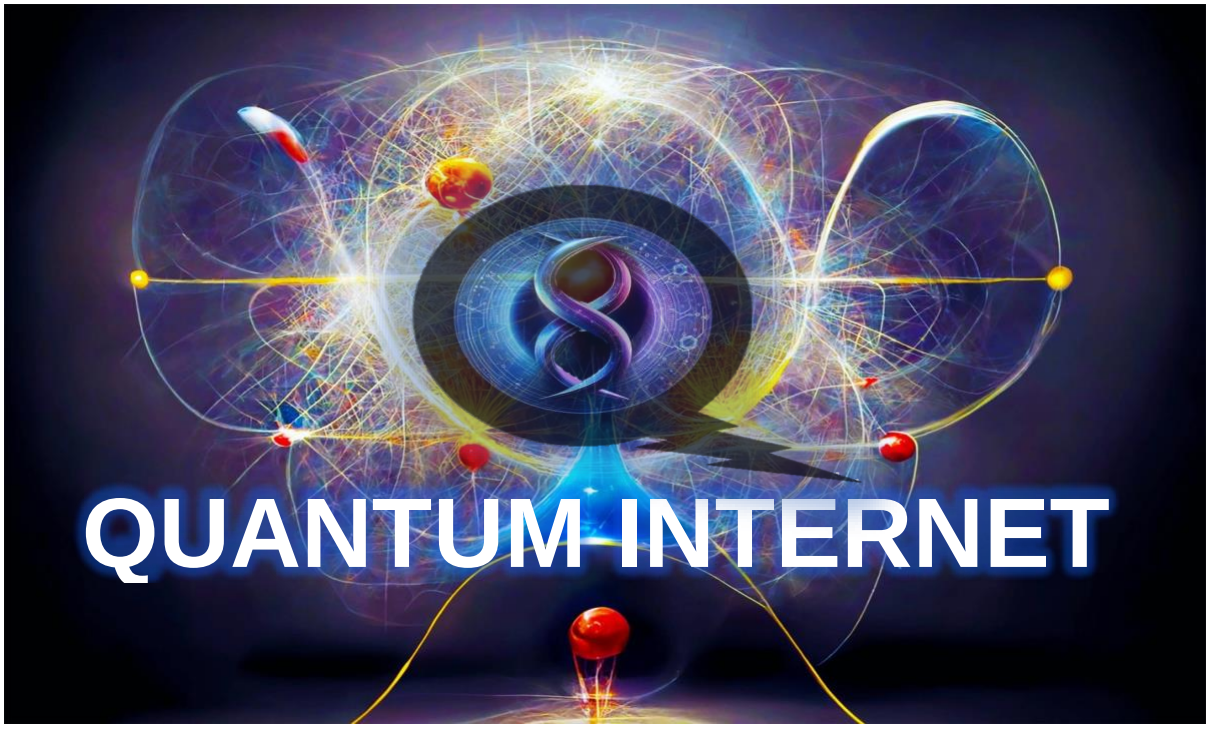
Quantum Transceiver Antennas
Quantum Connectivity, Our Patents, and IP Value



Abstract & Summary:

Patents and Intellectual Properties

This paper-focuses on Transceivers with a primary emphasis on the Quantum Internet enabled by Quantum Transceiver Antennas. The Company's IP "secret sauce" may be categorized in three major and broad areas:

1. Proprietary Hardware: We Solve The LAST INCH of the LAST MILE, which can only be solved using quantum principal approaches – operating on both particle and dual nature of energy. Independent US and Foreign 3Rd Party Lab and Field Tests Results. The future of all telecommunications, especially those with Artificial Intelligence systems requires dynamic, interactive connectivity at scale.
2. Connectivity Lock and Key: Pioneers of Integrated Transceivers and Antenna Pixels™: the real world-interfaces required for all Integrated Circuits, especially for mobile electronics, telecommunications; from Aerospace to Agri-Tech, From AI to IOT. It is understood that Light as an electromagnetic signal can be separated by materials as in a prism. Like a light prism, applying "antenna pixels" creates an ordering system of high efficiency for electromagnetic signals in the radio frequency spectrums. These Quantum Principals can be applied to current electronics for great advantage.
3. Software as a Service: Including Digital Signal Processes, transforming the traditional communications channels in new, unique ways that can change the internet from the inside out.

Information Clouds are the actual "engine" or "Work-Horse" of all "Clouds." Back in 2007 – 2011 the original technological definition of "CLOUD" which the United States Patent Office used as the reference point was defined simply as: the Remote Connection (logging into) an off-site computer. Our IP expands the definition of what "is" a Cloud, and what Quantum Clouds can do.

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1. Overview of the Scope of Our Intellectual Properties:

The Company is the owner of all rights, title and ownership and remains the authorized licensee and sole regulator of all of the intellectual property estate concerning the patented Quantum Transducer "QT." While the scope of the IP is broad, this ~~white~~ paper will narrow the focus to transformational applications of the QT applied as Transducers / Antennas. The QT represents a new technological paradigm that will decrease components, lower costs, increase life, reduce size and enhance performance in mobile telecommunication, consumer electronic, personal computing, digital appliance devices and high-performance clothing.

The invention of the Integrated Circuit launched INTEL and ushered in the first digital microprocessors. Computers changed our world, but a larger, world bridging requirement remained elusive. All electronics must have "transducers" to operate. Transducers are the fundamental underlying technology our age, transforming energy and matter from one state to another. Until the Company's pioneering patents, all transducers were *Single Function*, *Serial, Analog* devices. The Company invented the world's first integrated, multi-function Transducer -- QT heralds a new generation of input/output devices that fuse together wireless communications, audio output, voice input, ultrasonics, advanced sensing, new approaches to processing: transformational & bubble computing, using traditional communications channels in unique and previously unimagined ways; a revolutionary approach for "instantaneous" communications as well as quantum computing without necessarily requiring the use "Q-Bits."

Early adoption in emerging markets is crucial. For example: NVIDIA recognized AI's potential early leveraging their expertise in gaming to transition into bitcoin mining & AI. In their 02/2019 market cap was $96b. Intel @ $238b took longer to adapt, missing the early mover advantage. Fast Forward. Today 02/2024 NVIDIA's Market cap stands at an impressive $2T while Intel has dropped to $183Bb.

2. Summary of Our IP and Value Proposition:

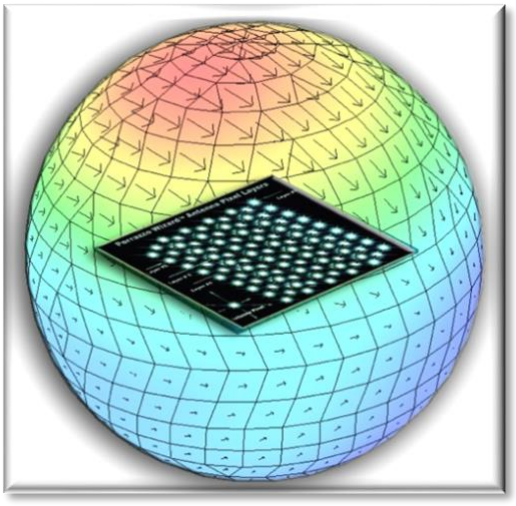
In many instances, our Intellectual Properties are highly coveted and valuable because of their disruptive nature and even considered "Displacing" in the Wireless Tele-com and Information Cloud Space[1].

Presented in this paper, the Company has patented foundational, novel and hither-to-for un-contemplated inventions for *information clouds* and *exchange system*s comprising mobile electronic devices, which have the ability to enhance communications and wireless services. As stated, our *information exchange system*s includes intellectual property to overcome obstacles relating to accessibility, scalability and security as well as safely passing information between one or more secure cloud environments within a network.

2.1 Summary of Major QTA Breakthroughs:

The following are the prominent technical characteristics of the QTA technologies. Specifically, a Quantum Transcieving Antenna ("QT" or "QTA") comprised of a substantially pixel matrix / antenna polygons such that the structure allows and electromagnetic ordering, similar to a prism. Following Snell's equation principals, wherein each pixel element, or a plurality of elements may form a near perfect isotropic radiator / dipole. These field effects, unlike current classical physics antennas, are independent. They encourage and create multiple dimensional interactive field effects, like an EM torus. The interactions between the antenna pixels provides near limitless variations / combinations of electromagnetic lensing. These electromagnetic lenses formed by overlapping vesica piscis are particularly conducive to the particle nature of energy, as opposed to it wave nature, fixed wave, fixed pole, fixed wavelength. The pragmatic results are significantly enhanced performance, bandwidth, gain and simultaneous transmission and reception. Here is a summary outlined below:

- QTA uses less impedance (less resistance means less heating and more usable energy).
- QTA uses 'orders of magnitude' lower current to accomplish the same amount of work.
- QTA operates with lower voltage to accomplish equivalent operations.
- QTA can be multi-function, simultaneous, bisynchronous, analog, or digital or both.
- QTA Operates with Quantum Field Effects, Inter-dimensionally; able to penetrate solid objects, even rock bricks, metals, and ground planes. QT can receive and transmit "intelligence" through rock, metal, and concrete.
- QTA works non-line-of-sight, to transmit or receive signals.
- QTA can operate directly on a ground plane, or even exposed to "high-voltage" interferences.



- QTA can ambiently harvest energy – able to light LED's; leading the way to eliminate batteries and replace them with flash capacitors or evergreen devices. Energy we waste can be 'harvested' or

[1] Please See: 2023 Mobile Information Clouds- Principals of Issued Patents & Products Transforming IOT, IOF & Telecom Ver 3.0 and 2023 Changing the Internet from the Inside Out- NEW Q-Net PATENTS for Quantum Breakthroughs Ver 3.0

'recycled' to great advantage and at very low-cost using QT technologies very efficiently.

- QTA can convert energy (electricity) into radio frequency signals for communication and vice-versa and QT can convert these radio signals back into electricity (energy).
- QTA can wireless transceive power simultaneously with intelligence (data/information); Entirely new kinds of photonic microprocessors based on QT dynamics are contemplated.
- QTA can create new wireless products that don't need anywhere near the same amount of power and current to get the job done fast, economically, and conveniently, i.e., Q-Pads, etc.
- QTA can operate without conventional cell tower infrastructures.
- QTA can integrate multiple functions simultaneously and harmonize wide frequency bands.
- QTA changes the paradigm of how electrical energy and wireless intelligence (information), is transformed through various states. This capability goes well beyond how it is used in telecom.
- QTA uses principals of Electromagnetic Holography to new and pragmatic advantages.

QTA patented, multi-functional transducer technology has the potential to provide not only significant incremental changes, but also long-term, disruptive replacements in nearly every major industry worldwide. Currently the Company is positioned to enter the marketplace with QTA mobile devices that have greatly diminished health risks, while featuring unparalleled signal strength, speed and connectivity.

QTA, incorporated in devices and infrastructure will impact telecommunications, wireless electronics, telemedicine, education, security, construction, lighting, as well as the energy sector. This is far too big and broad for one company to monetize alone. For this reason, QTA has adopted the strategy of forming joint ventures with corporate leaders in these respective industries. By pooling Intellectual Properties within a joint venture, new and improved QTIP within the specific market can be created.

2.2 Additional Key Commercial Value Propositions Just Focused on Q8 Antennas:

Additional key value propositions demonstrated in the patents to form the enhanced information exchange systems include but are limited to:

- Antennas Upgraded for Microwave Backhaul
- Antennas required for all AI, Robots, Drones and Autonomous Vehicles
- Antennas Enabling Rural Internets
- Antennas to enhance, enable and transform Micro-Financial, Crypto and E-Commerce Transactions
- Antennas for Digital Fencing; Software Perimeter
- Antennas for Two-Way Radio, First Responders, Marine and creating an "Omni-Grid."
- Antennas for emergency, disasters impacted areas or active conflict war zones where deployed on-the-ground Media Teams can operate with increased safety providing updates Real-Time in Communications in Compromised Areas.

3. Introduction of Company's Patents & Intellectual Properties

3.1 Issued US & Foreign QT Patents Summary

The original QT patents were processed by the well-respected IP law offices of Townsend, Townsend & Crew of San Francisco, CA. The Company has also used Bielen, Peterson and Lampe of Walnut Creek,

CA. Current Patents are being processed by the law firm Greenberg & Lieberman, LLC headed by Michael Greenberg in Washington, DC.

The Company has currently filed 63/639,681: Quantum Transceiver Antenna ("QTA") and Method for Construction. 63/639,681 has initially been filed as a provisional USPTO Utility Patent. The Company intends to convert at the earliest opportunity to a full non-provisional Utility Patent to establish a new IP pathway for foreign jurisdictions. The Company is also exploring cooperative continuation patents with potential strategic partners.

There may be more than 24 new patent disclosures alone, pending filing based upon: 63/639,681: Quantum Transceiver Antenna ("QTA") and Method for Construction.

The Pending Patent Invention relates to thousands of different kinds of sensors and transceivers, telemetry systems, and other electronic devices, allowing them to be made less expensively, use less power / energy; have better functionality; operate with less friction/heat; run more efficiently; able to solve Last-Inch / Last Mile connectivity issues; operate earth to space, and off-planet; able to seamless integrate into desirable AI systems and enable faster, more secure financial transactions.

Constructed and comprising of Antenna Pixels enabling the Quantum Internet. QTA allows operation on the dual nature of all energy and matter as both particles and waves which are entangled systems affording instantaneous transception unhindered by distance, space or time not possible with the prior art.

3.2 The Timing of NEW Patent Filings:

Some of these new laws include, but are not limited to: The Prioritizing Resources and Organization for Intellectual Property Act of 2008 (PRO-IP Act of 2008, H.R. 4279) a United States Law that increases both civil and criminal penalties for trademark, patent and copyright infringement. The law also establishes a new executive branch office, the Office of the United States Intellectual Property Enforcement Representative (USIPER). The PRO-IP Act also permits the Department of Justice to conduct civil suits on behalf of copyright holders. Intellectual Property Protection Act of 2004 & Separately 2006.

3.3 Summary to the Invention as Described Previously in the Patents:

Expanding the definition of "cloud' to include intersections of traditional communications channels (Blue Tooth, WiFi, GSM, 5G, etc.) in new and unique ways, virtually making any intersection of Electromagnetic Signals into a "cloud," and even as a new kind of interactive "processing system." This includes both analog, digital and hybrid EM Signal interactions on virtually any kind of electronic device with the implication of transforming that device or a network, from the inside-out. This includes, but is not limited to RF, ultrasonics, phonons, photonics, and RF Signals as Energy – recycling RF energy while simultaneously still preserving the intelligence of EM Signals that may also have data / information.

3.4 Understanding the Basic Properties Quantum Transceiver Antenna ("QTA"):

EM energy, as light (Photonics) or radio frequency (RF), makes up a continuous spectrum. QTA operates as a prism, separating electromagnetic signals into pure and distinct respective wavelengths. Each signal is concentrated through this lensing effect, causing the signal to gain natural coherence. QTA works as an" ordering" technology, using quantum principles.
QTA is a thin membrane, embodying a singular quantum structure. With dimensions from 1" x 0,5" x 0,03125" or preferred larger dimensions, depending on area of use.
QTA works as a multifrequency antenna, able to send and receive a broad spectrum of frequencies simultaneously, with high gain, not being frequency constrained.

QTA enables longer range communications, less affected by interfering signal obstacles compared to existing antennas. Last-inch-of-the-last-mile solutions.
QTA Lab Results from acknowledged state of the art facilities in Korea, Japan, and the US confirm the technology's unique capacities for enhanced communications.
QTA Field results shows previously unattainable results: range, energy, low weight.
QTA can be applied to current electronics with great advantages, seamlessly, operating non-line-of-sight, with a potential to positively disrupt industries.

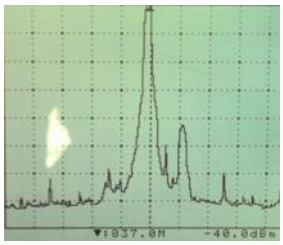
New Intellectual Properties:

The Company intends to file additional claims on existing patents and additional patents on its intellectual properties and process specifically the commercial embodiments of various QT Antennas: Configurable, Distributed Quantum Transceivers. The Company intends to expand its patent protection and foundational teachings in Wireless Power Transfer; Ever-Green / Ever-Charge Devices, and recycling of intelligent signals (telecommunications).

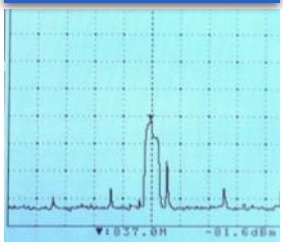
IP Disclaimer:
Even though the Company believes that *new* patents based on our IP will be issued, there can be no assurance that patents will be granted on its patent filings or that its intellectual properties, technologies and processes are able to be patented, or that the Company will file for patent protection of its proprietary technologies in the future. The Company cannot ascertain that its proprietary technology will provide a formidable barrier for competitors attempting to enter its markets. The Company intends to penetrate its markets quickly, and maintain market dominance through aggressive marketing and sales activities, product performance and quality customer service.

The company's intellectual properties, "IP" focus on efficiencies and optimizations. In order to stay competitive, the Company has diligently kept and protected its methodologies of QT as highly proprietary and trade-secret.

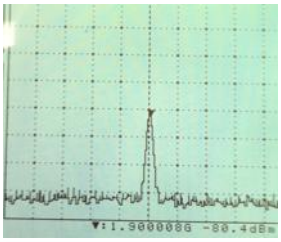
Summary of Compelling Performance of QT Validated by Independent Testing:



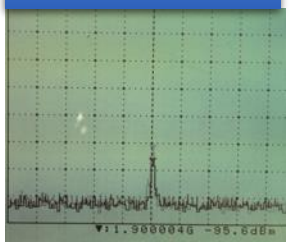
QT @ GSM 837.0Mhz -40Dbm
41.6 dB above Samsung



Samsung GSM@ 837.0Mhz -81.6Dbm
41.6 dB Below QT Performance



QT @ GSM 1.90Ghz -80.4bm
15.2 dB Above Samsung



Samsung GSM@ 1.90Ghz -95.6Dbm
15.2 dB Below QT Performance

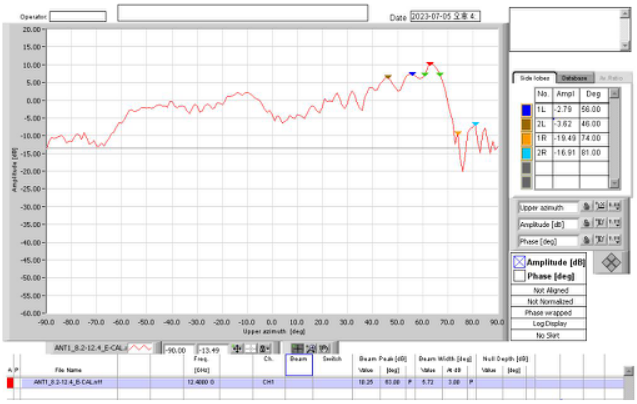
- In side by side, independent tests* QTA vs Samsung 19000s GSM Antenna QT consistently performed 15 to 40 db better than Samsung in GSM 850Mhz Band and GSM 1.8Ghz & 1.9Ghz Bands during “real-time” calls in both lab and real-world operations.
- Q8 Replaces traditional and conventional antennas; whip, rubber ducky, patch, circuit board antennas. Making most conventional antennas obsolete. Non-Powered; FCC & CE Compliant under Part 15 (CFR 47)
- Multi-band, bisynchronous simultaneous reception and transmission at any angle coupled to the ground plane, and in environments where other antennas cannot function, with little to no loss in signal quality.
- Can be mounted in a variety of locations where conventional antennas will not operate.
- Offers Immunity from other RF frequencies, and other transducer operations including mounting next to high voltage, transformers, batteries, loudspeakers, microphones, video displays, etc.
- Water resistant and unaffected by UV degradation.
- Individualized Transducer Pixel elements allow maximum optimization
- Light-weight and thin film geometry.
  1” x ½ ” by 5 mils thick, ½ gram
  (less than half a teaspoon of sugar)
- Reception and transmission
  below 20Hz to above 100Ghz+
- Not line-of-sight;
  able to penetrate walls, bricks, and
  metal ground planes
- Durability. Able to sustain substantial
  damage and function properly.

QT/Q8 makes indoor or mobile non-line of sight satellite communications possible and easy offering Last Inch/Last Mile Connectivity Solutions

QT Recently tested by RAPA in South Korea from 700Mhz to beyond 20.0Ghz July 4-5 2023. Korea Radio Promotion Association (RAPA) was established as a special corporation in accordance with Article 66(2) of the Radio Waves Act to promote efficient management of radio waves, response to changing spectrum environment, and facilitate the sound development of technologies using radio waves by strengthening cooperation and relationship among radio waves, broadcasting and telecommunications companies, internationalizing radio wave broadcasting industry, standardizing technologies using radio waves, with the aim of contributing to create an environment for the promotion of radio wave broadcasting.

Event 26: Calibrated Ref Antenna 12.4 Ghz to 12.4 Ghz

July 4-5, 2023 Tested From 12.4 Ghz to 12.4 Ghz
QT Ant 1: From Avg. 10.25 dB gain by QT compared to Ref Antenna

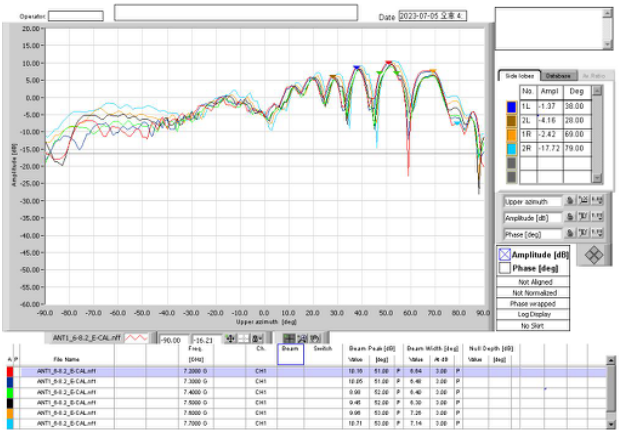


Event 35: Calibrated Ref Antenna 17.8 Ghz to 17.9 Ghz

July 4-5, 2023 Tested From 17.8 Ghz to 17.9 Ghz
QT Ant 1: From Avg. 7.88dB - 8.10 dB gain by QT compared to Ref Antenna

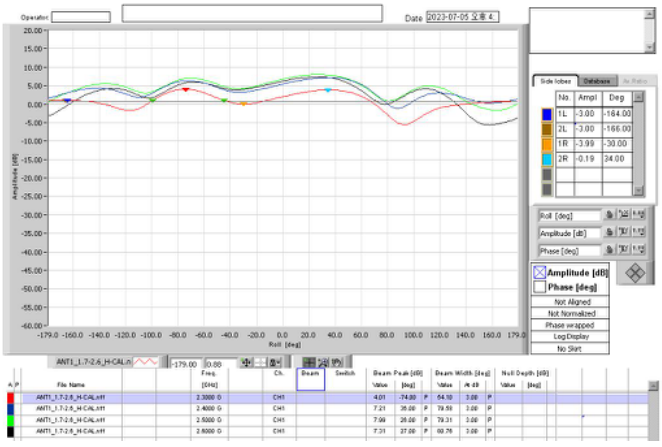
Event 17: Calibrated Ref Antenna 7.2 Ghz to 7.7 Ghz

July 4-5, 2023 Tested From 7.2 Ghz to 7.7 Ghz
QT Ant 1: From Avg. 8.98 – 10.71 dB gain by QT compared to Ref Antenna



Event 5: Calibrated Ref Antenna 2.3 Ghz to 2.6 Ghz

July 4-5, 2023 Tested From 2.3 Ghz to 2.6 Ghz
QT Ant 1: From Avg. 4 - 8 dB gain by QT compared to Ref Antenna



CTO Message:

It is widely accepted that only quantum principals can solve limitations of the current internet, information cloud and wireless systems, especially Last Inch / Last Mile connectivity requirements. Only Quantum systems are able to operate non-linearly, and essentially “multi-dimensionally” providing the only means economically feasible to overcome current and conventional system limitations. Q-NET, software as a service “transactions,” using our patents, based upon Quantum / Photonic principals on non-quantum devices can enable fast, secure transactions. With 2024 well upon us, advocates of Artificial Intelligence systems must acknowledge that future AI systems must provide for connectivity at scale that not only necessarily includes Last Inch / Last Mile solutions, but they must also be Bi-Directional, IOT / Interactive communications pathways that are Dynamic and situational aware. Our technologies offer this inherently and the pathway for antenna pixels to operate in similar manners of control to high-definition displays – i.e. high-definition RF is a contemplated next step. Our connectivity does not require “mining,” can operate as their own mini-chains and distributed ledger systems for secure digital rights management, track and trace, and supply chain integrity that may transform the internet from the inside-out and be a new “corner-stone” for the foundation of Internet 3.0. We are currently working with partners seeking to roll-out Q-Net solutions in targeted industry sectors.

Kind regards,

Michael Porrazzo

Chief Technical Officer