BYTEWISE IoT
send less, get more

Outwit Your Data Limitations with Patent Pending ByteWise^{IoT}

OPPORTUNITY!! THE INDUSTRIAL INTERNET OF THINGS (IIoT)
Fueled by Growing Cloud Deployments and Sensor Networks

With connected devices now reaching 50 billion, the Global IIoT market, valued at USD 85.4 billion in 2018, is expected to reach USD 515.8 billion in 2026, growing at a Compound Annual Growth Rate (CAGR) of 25.2%. For example:

- **Oil & Gas** – Looking for increased digitalization, safety/productivity gains, need to better track fleet/assets, IoT spending is expected to reach $39.40 billion by 2023, rising at a CAGR of 24.17%.
- **Power Grid** – Need to manage increased grid demands, better monitor assets, and accommodate an expanded grid, IoT spending is set to exceed USD $15 billion by 2024 with a CAGR of 20%.
- **Mining Industries** – Diminishing returns, pushing further remoteness, increasing extraction costs, creates critical need for optimizing operations, where IoT should exceed USD $18.0 billion by 2024 at a CAGR of 20.5%.

PROBLEM: COSTS/TECHNICAL LIMITS/UNCERTAINTY
i.e. Satellite Transmission Cost About $10 Per MB, Cellular Transmission Cost $10 Per GB

Faced with full implementation costs, technical limits impeding ROI, known IoT security gaps, the IoT early adapter rate is still only 38%. The needed industry remote situational awareness has not achieved.

- **Oil & Gas** – Wireless IoT efforts hampered by high cost of satellite communications, divergent systems.
- **Power Grid** – Networks/budgets/orgs overwhelmed by data and assets to transmit/operate smart grids.
- **Mining Industries** – Remote network limitations and expense hindering real time comms, threatening assets.

SOLUTION: THE BYTEWISE^{IoT} ASI NETWORK BRIDGE
Nix Network Transmittal Expense, Limitations, Get Real Time, Secure

ByteWise^{IoT} router plug-in network bridge implements Artificial Subconscious Intelligence (ASI), a form of Artificial General Intelligence (AGI), during router sensor transmissions to the Cloud, saving over 99% in internet transmission costs, freeing over 99% in network capacities and speeding transmissions by over 99%. And by freeing up so much network capacity, also allows us to offer unparalleled IoT systems security.

SIGNAL EDGE
thinking data across the network
signaledgecorp.com

Outwit Your Data Limitations with Patent Pending ByteWise^{IoT} Network Bridge Powered by ASI

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Nature's Data Processing Solution: Human Subconscious Intelligence

vs

Signal Edge's Solution: ByteWise^{IoT}'s Artificial Subconscious Intelligence™ (ASI)

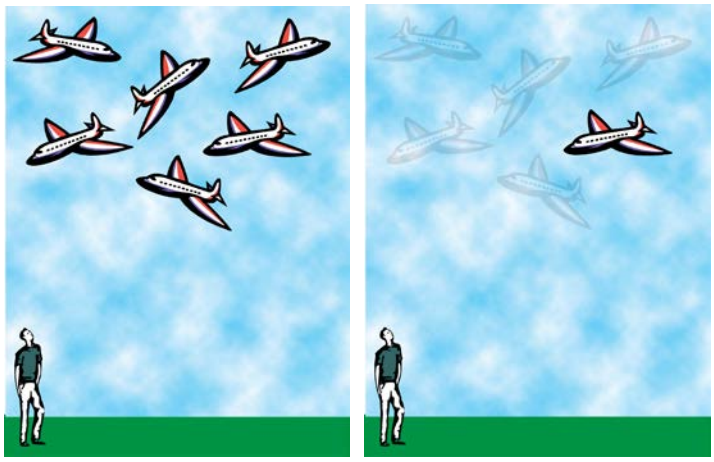
Nothing More Efficient at Data Crunching Than the Subconscious

From our senses the subconscious mind receives some 40,000,000 nerve impulses, 60,000 bits of information a second. Yet, within that same second, the conscious mind is only capable of processing 40 nerve impulses, 7 to 16 bits of that information. That constitutes a subconscious data reduction/translation of about 99.988% making the subconscious the original Big Data processor. It does all of the heavy lifting necessary for conscious existence.

Motion Reduction/Focus

Separates Primary from Peripheral Vision, Separates Motion from the Motionless, Sends Motion at High Speed

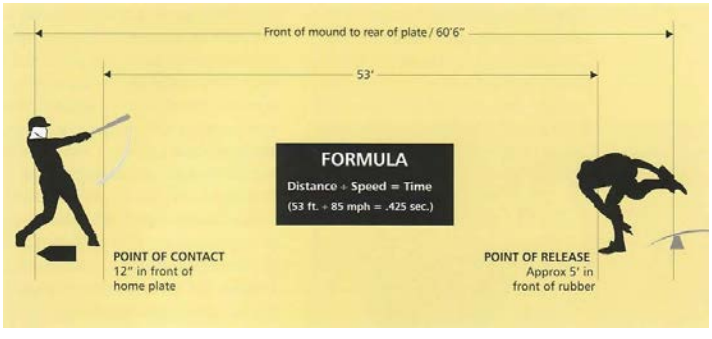
Mind must focus on one plane so not to overload the subconscious



Motion Prediction/Delegation

Gaps Filled In, End of Event, Priority Assigned, Reaction Made

Batter analyzes recent/current motion & past experience to determine when to swing



ByteWise^{IoT} –
Sends Only
What Needs
To Be Sent

How Our Dual ASI Network Bridges Work

The traditional network routes without reference to sensors' data, the same data over and over again in many small transmissions. Instead ByteWise^{IoT} Motion Decimator extracts and groups within a time frame your edge router obtained data. Then it analyzes the grouped dataset to ascertain what data is in motion, any changes, that are to be sent since the last transmittal. Next the Decimator makes better use of each frame sent by packing each with the derived dataset. Data is no longer sent in multiple network frames, lowering over 99% the number of sent frames. After the Motion Decimator sends the optimized data, on the other end at the Cloud, a ByteWise^{IoT} Reactor replicates the original data set.

99% Byte & Frame Reduction/$ Savings

By several multitudes increased network capacity.
e.g. Over MySQL© and MQTT©
MySQL© of Oracle and MQTT© of IBM

Most Secure Transport

Transmissions limited to motion data only.
Hackers need volumes of complete data sets
to decipher data patterns, so they are stumped.
Extra capacity enables new Ghost
and Picture in Picture security.
Performs FIPS 140 certified encryption.

Benefit: Biz Domination

Lead the pack in transmittal cost savings.
For details see white papers, case study and more at

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