



**PREVIEW OF THE ERA  
FOR ENERGY DATA VISUALIZATION,  
MONITORING & PROCESSING.**



**Are we analysing the streaming data** to monitor the past, present and predictive performance of our enterprise?

**It is a necessity more than an option**, as we enter fourth industrial revolution. According to the Cisco Global Cloud Index, 847 Zettabytes of data will be generated by 2021.

**Advancements in technology allows us to unlock the potential** of IIoT, Cloud computing and Virtualization.

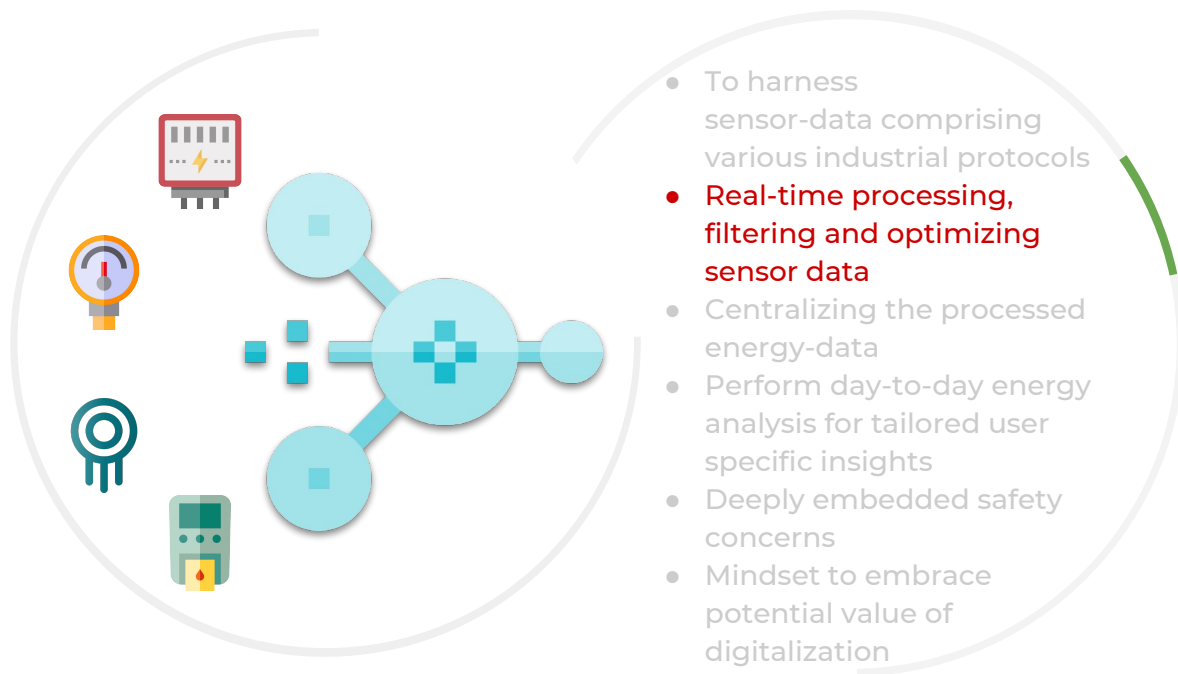
# The Underlying Challenges...



- **To harness sensor-data comprising various industrial protocols**
- Real-time processing, filtering and optimizing sensor data
- Centralizing the processed energy-data
- Perform day-to-day energy analysis for tailored user specific insights
- Deeply embedded safety concerns
- Mindset to embrace potential value of digitalization

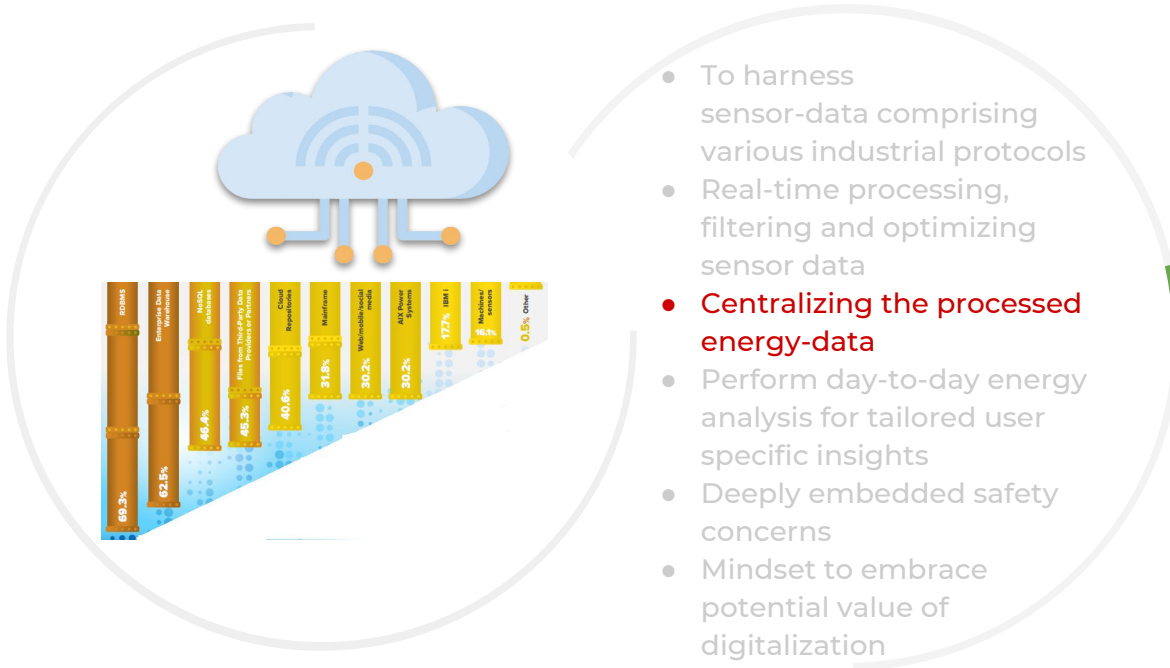
- **Diversity in industrial protocols**, and data-aggregation standards, are bottleneck issues in handling, processing and storing the data collected from the sensors.
- Lack of standardized protocols and diversities in operating systems leads to the **need of multiple protocol converters & acquisition devices**.
- **IoT communication protocol market size** by Connectivity Technology (Wi-Fi, Bluetooth, Zigbee, Bluetooth Smart) is expected to **grow upto USD 15.80 Billion** by 2022, at a **CAGR of 4.7%**.

# The Underlying Challenges...



- Primary challenge is to **process the received data in real-time** and integrate insights across analytics.
- Higher requirements of data acquisition devices, data analysis tools, & data security drives up cost.
- Storage of **unoptimized sensor data** will have huge impact on storage cost.

# The Underlying Challenges...



- Complexity of integrating** multiple technologies, data acquisition tools, industries, devices, data and services, limits the functionality, & performance.
- Key challenges are limited expertise, **interoperability between systems**, quality of data integration, and budget for data storage.

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- Data market is projected at a CAGR of 18.45% during 2016–2021.
- Traditional statistical analysis struggles to process large volumes of assorted data into meaningful comprehension.
- Another challenge is in defining how the available data is interpreted for taking effective decisions.

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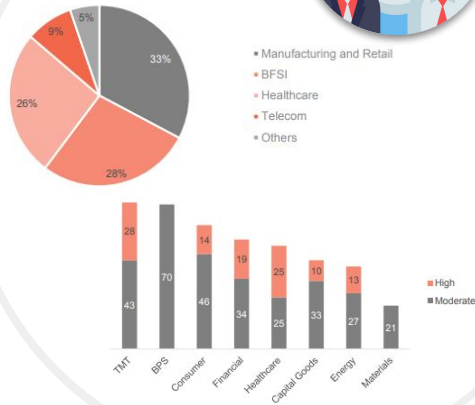
- **Cloud computing market size** is expected to grow to **USD 623.3 billion by 2023**, at a Compound Annual Growth Rate (CAGR) of **18.0%**.
- Rising number of internet security and cybersecurity fear in protecting sensitive information and assets is a major concern.
- Requirement of a secure connection, data security & safety, developing unified security models, and correlating between sensor networks is heightened

Source: <https://www.ugc.edu.hk/doc/eng/rgc/theme/hall/ppt1.pdf>

# The Underlying Challenges...



DATA ANALYTICS OUTSOURCING BY VERTICAL



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- **Mindset to embrace potential value of digitalization**

- Potential industries are aware of the benefits of digitalization and yet utilizes traditional technology.
- High investments on the core infrastructure of an IoT framework such as sensors, actuators, cloud/on premise servers, multiple protocol converter and communication network creates a financial barrier.
- Complexity in understanding technology & limited skilled labor.
- BFSI, E-commerce, Healthcare, Manufacturing and Telecom are the major verticals having high opportunity to transform towards digitalization

Source: <https://www.avendus.com>; NASSCOM; NASSCOM # KPMG Survey, TMT – Telecom, media and technology, BPS – Business processes and services



### SMART INFRASTRUCTURE

Business Intelligence | Rule Engine | Integrations | Advanced Analytics & Visualization | Unified data from different BU's | Cloud/On-Premise



### CLOUD GATEWAY

Multi-Protocol | Gateway Management



### AI & MACHINE LEARNING



### INDUSTRY 4.0

### ISO 50001 REPORTS



### OPTIMIZED DATA



### ALERTS & EVENTS

Push Notification | SMS | Email



# How the IoT Platform Fixes Problems in Today's Industry!

You need a platform to overcome the underlying challenges to generate value from the interconnection of physical and digital assets through data & realize technology's full potential.

We would like to introduce an advanced IoT based system **Elmeasure ELNet** that lets you collect & process real-time data and deliver advanced visualization & insights.

# Reshape Your Industry with IoT...

Leverage IoT to **provide visibility, decentralized decision-making & optimize operations**, from shop floor to warehouse and throughout the supply chain.

**Interoperability** between different meters, equipments and protocols is a vital feature being implemented in IoT

**Revolutionize operating models with Edge computing** by crowdsourcing, filtering, & data abstraction reducing data transmission & storage cost

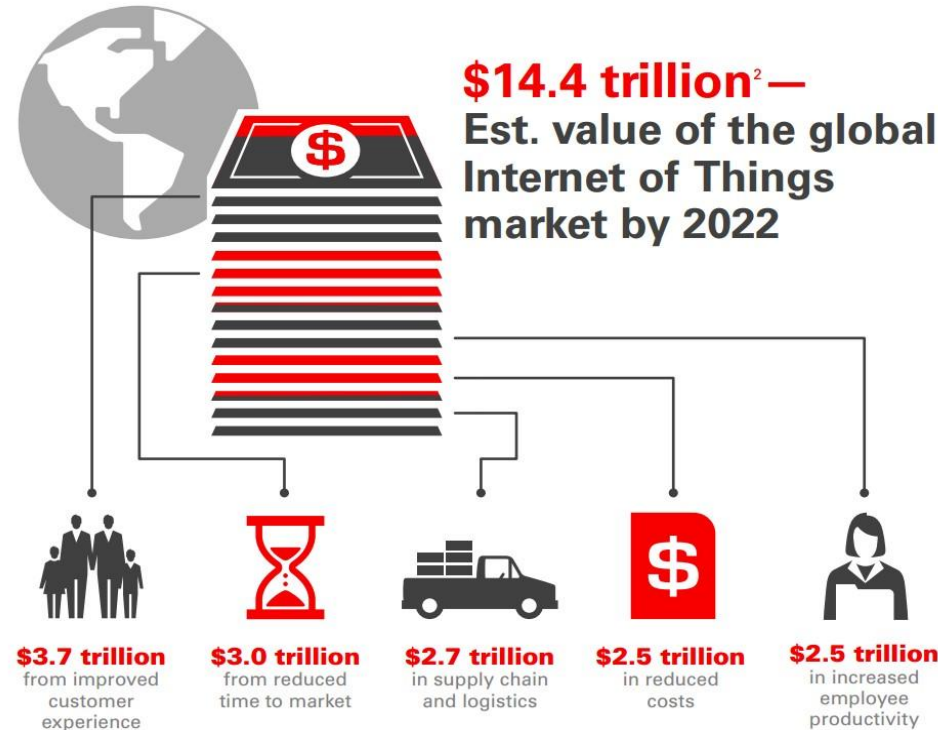


IoT can empower you to **create customized dashboards, & reports or augment reality based on streaming data**

**Multi-layered security** platform to safeguard data, devices, & applications against external and internal threats.

Data-centric approach of the IoT allows **Preventive & Fast-track maintenance** to reduce costs and provide operational transparency.

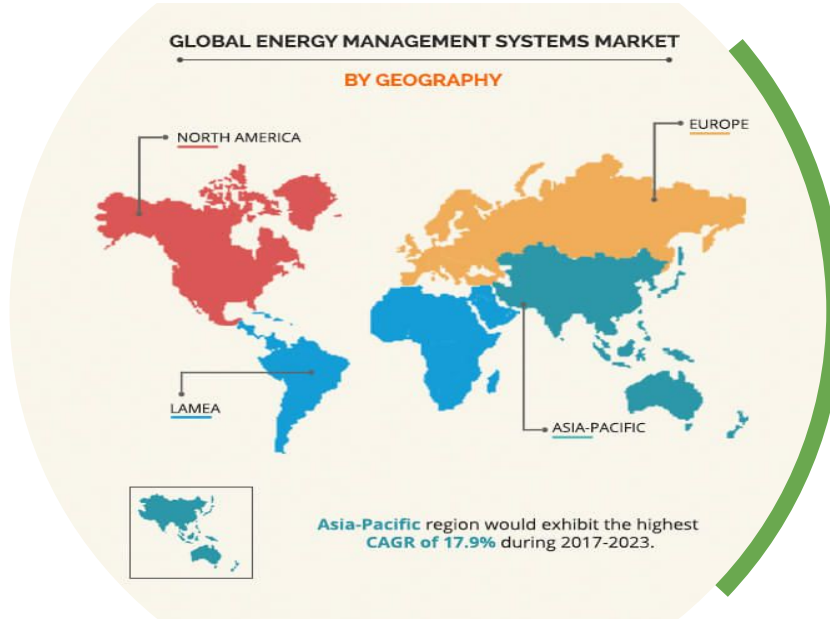
# Reshape Your Industry with IoT...



Source: <https://cerasis.com/iot-platform/>

- Industrial Firms has Accelerated their Investment In IoT for better preventative maintenance, improved decision-making & cost avoidance.
- IoT platform provides flexibility, scalability & compliance to perform event correlation, statistics preparation, metric calculation, and analytics.
- Connected technology to yield customized products/services & is all set to transform the value chain and business model of industries in the days ahead.

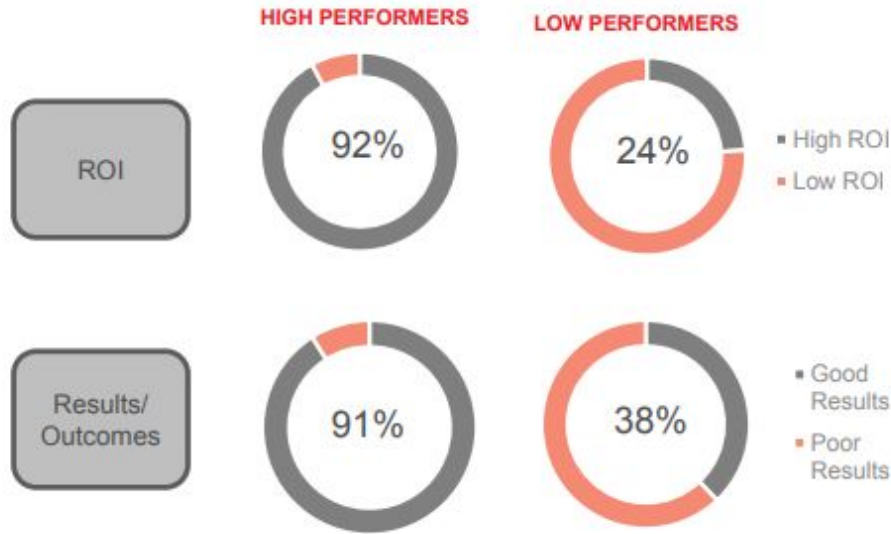
# Global Market for Energy Management System...



- Energy management system is gaining popularity in **global market & is expected to reach \$62.3 billion by 2023**, at a **CAGR of 13.5%** during the forecast period (2017-2023)
- Asia Pacific is projected to be the fastest-growing region for the global big data market with **CAGR of 17.9%**
- On the other hand, Latin America shows great prospects in this space while Middle East and Africa (MEA) is expected to move toward the growth phase in the next five years.

Source: <https://www.alliedmarketresearch.com/energy-management-systems-market>

# What can lead to Significant ROI?

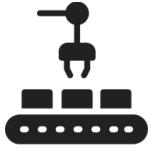


- **DATA VISUALIZATION with Actionable insights** can help manage anticipated failures allowing staff to budget and plan, for reduce the upfront cost
- **REAL-TIME MONITORING & PROCESSING** would help in preserving assets, keeps things running in optimum condition, and maximizes life expectancy.
- **PREVENTIVE MAINTENANCE** can help an enterprise between 12-18% over reactive maintenance. Also, Proper implementation of HVAC would use 15-20% less energy.

Source: <https://www.windpowerengineering.com/business-news-projects/42-roi-statistics-that-prove-you-need-a-maintenance-management-system/>

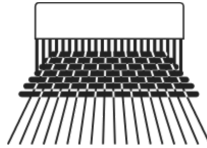
Source: Oracle, Accenture \* Accenture Survey of companies using analytics, High performers use analytics as part of their strategy

# Our SMART SOLUTIONS



## Energy & Process Management

Chemical | Cement | Food | Pharma



## Textile Energy & Process

Energy | Process | Audit



## Data Center Management

IT Infrastructure



## Utility Management System

Electricity | Water | Gas



## Street Light Management

Street lights



## Water Management System

Residential | Commercial | Industrial

**#EnergySaving** is crucial. In the world of unlimited need & limited energy resources. A better solution to make the savings renewable is what we should be seeking & we are on it.

**25+ Industries are benefited by our Custom solutions.**

**THANK YOU**



**HANNOVER  
MESSE**

**STALL: H12. D45 (D4511)**  
**DIGITAL ENERGY PAVILION**