Delhi Section

Sensor to ERP Integratio

Presented by

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My Story

Started Career in year 2006

Implemented first DH project in 2007

Worked with Major Oil & Gas Clients in MNCs

Return to India – working with variety of Indian Clients

About us

- Progressive Engineering Firm with strong expertise in System Integration, IT and cross industry experience

- Completed 20+ projects of IIOT/Digitalization/Industry4.0 worth over 100 Cr in last 8 years

- Registered Office in Singapore, plus projects executed in Canada, Turkey, UK, Middle East

- Trimasys and ECGIT are part of same group company working together for IIOT/ Sensor Offerings

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nsor to ERP Integration – Business Objectives

- Improving "Business Competitive
  - By Reducing Cost due to live
    monitoring of CoP
  - Better planning due to high
    visibility to Shop floor opera
  - Improving Accuracy and Fide
    Plant Numbers

- To be able to use advanced analy
  to
  - Improve Asset Life – by Pred
    Maintenance
  - Perform Condition Based
    Maintenance of Assets

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Sensor to ERP Integration – High level Benefits

- Unlocking of Data Siloes

- Automation of ERP Processes

- Providing a "Single Source of Truth"

- Process Efficiency & Driving efficiency

- Building the base for Predictive Analytics

- Reduction of Manpower Utilization for Manual data Collection

- Reduce expensive Machine Failure

Typical Implementation Steps

- Define Clear Business Objectives

- Identify the ERP Process to be Automated

- Identify the gaps that can be filled by IIOT Systems & Sensors

- Identify BoM of Sensors to be procured (e.g. Flowmeters, Proximity sensor, Accelerometers etc)

- Identify Software BoM – i.e. IoT platform or Data Historian

- Release RFP for all BoMs and get <u>budgetary</u> quotes

- Get Management Buy-In, End User Department Buy-In and all approvals

- Release Final RFP, get Final quotations from Vendors, Select Vendor basis technical and commercial compliance

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Some Tips for successful Implementation
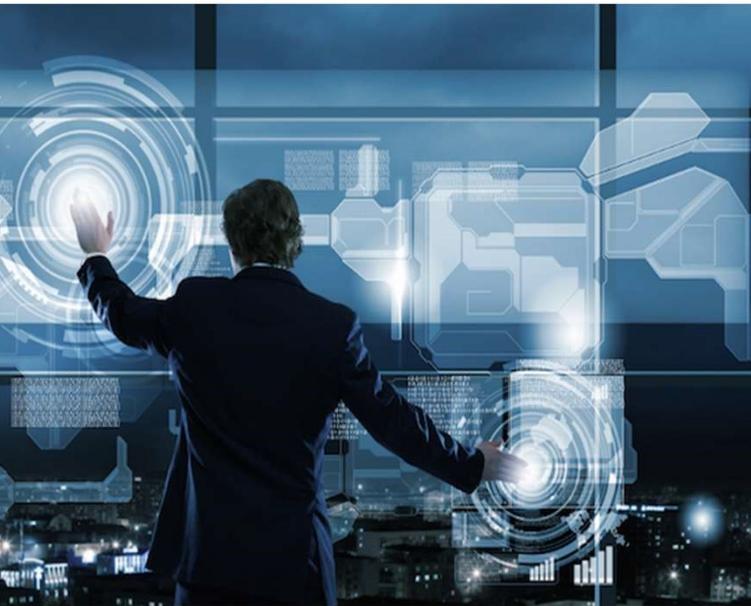
- Perform Detailed Requirement Gathering and Get Approval from all Stakeholders like User Department, Management & Vendors
- Confirm Supplied BoM vs Ordered BoM
- Form an internal Task force to ensure the project is on Track – internally as well as externally

- Keep Checking the Project Deliverables against Intended Business Outcomes
- Keep Checking the User group, if any additional Wishlist needs to be delivered.
- Upon Go-Live, ensure proper usage of system is done and that users don't go back to legacy methods of working.

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Data Historian vs IoT Platform

Feature	Data Historian	IoT Platform
Investment Model	More Capex Intensive	Low to high capex and/or opex based
Hosting	Usually in-Premises, but cloud options are available	Mostly on Cloud, but In Premises are also available
Usability – End User experience	Data historians are end user configurable, customizable without coding.	IoT platforms have options from monolithic, low code to no code architecture.
Usability – System Integration	Some Data Infrastructures like OSISoft PI offer host of connectivity protocols like SDKs, REST APIs, OLEDB connectors, BI Integrators etc	IIOT platforms too offer integration using REST APIs, SDKs

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Data Historian vs IoT Platform

Feature	Data Historian	IoT Platform
Advanced Analytics	Data Historians rely on outside tools to perform advanced analytics	Most IoT Platforms have in-built analytics engines
ERP Friendliness	Since Data Historians are In Premise mostly, its easier to control data flow to and from ERP without compromising the security and privacy	IoT platforms if placed in premises offer the same security comfort as Data Historians. However, ERP data can be sent to cloud using proper security or encryption

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Case Study – Indian Edible Oil Major

- Client is in the business of Refining Raw Edible O (Palm, Sun, Soya)

- Refining process uses chemicals like Citric Acid, C etc

- Multiple Plants Commissioned since 90s

- Older Plants did not have flowmeters to measur Steam, Chemicals, or even raw material consum accurately

- Solution Involved variety of tasks like
  - Procuring Flow meters
  - Developing Web Application
  - Developing BAPI/RFC on ERP end to accept autom posting

Final Product

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Concluding Thoughts

- Data is the new Oil

- Without Data Infrastructure the power of data is diminished

- Cloud is getting cheaper & reliable, so tak the plunge

- The Power of Data, can break siloes, change work culture and transform the business rapidly

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