CUSTOMER CENTRIC MANUFACTURING

Leveraging the Internet of Things to Make the Customer the Center of Everything

The Internet of Things will allow manufacturers to provide B2B customers with a controlled level of involvement in manufacturing oriented business processes. This benefits both parties because both have the same objectives.

To date, more than 400 global manufacturing leaders have responded to the LNS Research Manufacturing Operations Management survey, which focuses on identifying the top objectives, challenges, and trends across manufacturing verticals. As this chart shows, the top objectives are indeed all heavily customer focused.

Top Strategic Objectives

Ensuring consistent quality of products Responsiveness to customer order demands Increasing production capacity and capabilities Getting new products to market faster Tighter alignment of business and manufacturing goals Global alignment and standardization of manufacturing processes and reporting

Regulatory compliance

Improving environment, health, and safety performance Effective human resource skills and management



FALSE CUSTOMER CENTRICITY

Don't expect customers to navigate your whole business process landscape. Instead, provide the information they need to make informed decisions about the current state of your execution capabilities in a single, easy-to-consume view.



This can be achieved by weaving a "digital thread" that incorporates customer communication in all business processes to deliver:

QUALITY

RESPONSE

CAPABILITY

CUSTOMER'S DIGITAL THREAD



Through smart sensors and Internet connected devices, an IoT platform provides the building blocks to allow the business and manufacturing functions, and their disparate implementation technologies, to be brought together into meaningful business processes.

INDUSTRIAL INTERNET OF THINGS PLATFORM

CONNECTIVITY

- Network Infrastructure -Wired, Wi-fi, and Cellular
- Standards Serial/

CLOUD

- Private/Public/Hybrid
- IaaS Compute, Storage, Network
- PaaS Run Time, Queue, Traditional DB/DW |

APPLICATION DEVELOPMENT

• Integrated Development Environment: JAVA, HTML5

Proprietary > Ethernet/Open

- Machine 2 Machine/Data Acquisition - Embedded, Gateways, APIs, Web Services, OPCUA, Modbus TCP/IP, MQTT, etc.
- Device Management
- Complex Event Processing
- Alarms, Condition Based Monitoring
- Data Transport and Speed
- Security Authentication, Access Control, Intrusion Detection/Prevention, Firewalls, Application Whitelisting, Antivirus/ Spyware, Cryptography, Logging, Data Tagging, Compliance, etc.
- Data Historian | In-Memory Database | Hadoop/Data Lake
- SaaS Traditional Enterprise Applications, Next-Gen IoT Enabled Applications
- Security Authentication, Access Control, Configuration Management, Antivirus/Spyware, Cryptography, Logging, Data Tagging, Compliance

BIG DATA ANALYTICS

- Statistical Programming: R, SAS, SPSS
 - Search, Text Mining, Data Exploration
- Analytics: Image/Video, Time Series, Geospatial, Predictive Modeling, Machine Learning, etc.
- Statistical Process Control
- Visualization

- Optimization and Simulation
- Metrics and KPIs
- IloT Data Model and Execution Engine
- Workflow and Business
 Logic Modeler
- Collaboration, Social
- Mobile
- Search
- Security -Authentication, Access Control, Configuration Management, Cryptography, Logging, Compliance

Moving from traditional ERP and manufacturing to a cloud based IoT approach is not yet for everyone. Look to the visionaries and enthusiasts to lead the way towards customer centricity through the Internet of Things.

CUSTOMERS AND SUPPLIERS MUST CROSS THE CHASM



"35% OF RESPONDENTS are currently working on an IoT project"

The example below illustrates how customers can have deep insight into your ability to deliver to their needs even before they have ordered. The customer is highly motivated to be involved in your processes, and tracking production and delivery adds confidence that their project will be successful.

CAPABLE TO PROMISE BUSINESS PROCESS

Capable to Promise goes beyond Available to Promise in the supply chain. It takes into account not only stocks but also the capacity of the plant or plants that produce the customer's orders.



Customers can use Internet portals you provide or build mashup applications that can provide access to relevant planning and manufacturing information, regardless of where it is stored. This builds a thread that connects the manufacturing systems, including supply chain and logistics providers, and helps the customer feel connected and engaged.

Not just customer centric manufacturing – now you have a SMART CONNECTED CUSTOMER

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