

Internet of Things (IoT) Technologies for Process Manufacturing: Global Markets

https://marketpublishers.com/r/I183DEAAD4EEN.html

Date: January 2018

Pages: 187

Price: US\$ 1,250.00 (Single User License)

ID: I183DEAAD4EEN

Abstracts

The global market for IoT process manufacturing technologies will grow from \$750.4 million in 2017 to \$2.7 billion by 2022 with a compound annual growth rate (CAGR) of 28.7% for the period of 2017-2022.

The hardware market will grow from \$314.3 million in 2017 to \$1.0 billion by 2022 with a CAGR of 26.8%.

The software market will grow from \$374.8 million in 2017 to \$1.4 billion by 2022 with a CAGR of 31.0%.



Contents

CHAPTER 1 INTRODUCTION

Study Goals and Objectives
Reasons for Doing This Study
Scope of Report
Information Sources
Methodology
Regional Breakdown
Analyst's Credentials
Related BCC Research Reports

CHAPTER 2 SUMMARY AND HIGHLIGHTS

CHAPTER 3 MARKET AND TECHNOLOGY BACKGROUND

IoT in Manufacturing

Process Manufacturing Industry Trends

IoT Evolution

Things Gain Intelligence

Need to Change

IoT Business Benefits

Beyond Machine-to-Machine Communication

How the IoT Works

Design Options

Fitting the Pieces Together

Getting a Fresh Start

Business Value of Industrial IoT Applications

Factors Driving Manufacturing

IoT Challenges

Legacy System Shortcomings

Revamping Business Processes

Devices

Embedded System Challenges

Getting Everything into Harmony

System Limitations

Complex System

Network Architecture



Need for a Central Platform

Security Challenges

High Level of Commitment

Need for Standards

Considerations

Meeting the Network Needs

IoT Standards Organizations

Association for Advancing Automation

Association for Manufacturing Technology

American National Standards Institute

Association for Packaging and Processing Technology

AVnu Alliance

Embedded Linux and Android Alliance

International Electrotechnical Commission

Industrial Internet Consortium

International Society of Automation

International Standards Organization

Modelica Association

MTConnect Institute

National Institute of Standards and Technology

Organization for the Advancement of Structure Information Standards

Organization for Machine Automation and Control

Object Management Group

OPC Foundation

OPX Leadership Foundation

PLCopen

RAIN RFID

Devising a Plan

Changes in Thinking

Finding a Use Case

IoT Application Categories

IoT Difference

Connected Supply Chain

IoT Applications in Action

CHAPTER 4 MARKET BREAKDOWN BY TECHNOLOGY TYPE: IOT PROCESS MANUFACTURING SOFTWARE



Emergence of IoT Platforms

IoT Business Benefits

Striving for the Ultimate Goal

Need for Developer Talent

Reducing Risk

Big Data as a Big Force

Big Data Challenges

Failure of Traditional Tools

Volume, Variety, Velocity and Variability Defining Big Data

Proper Connection

Master Data Management

Big Data's Management Challenges

Mining for Gold

Truth or Dare

Current Happenings

Diving Deeper into the Data

Incomplete Picture

Parallel Structure

Need for Speed

Aggregation

Working with Large Data Sets

Integrating Data from Multiple Sources

Automating Data Collection

Analyzing Data and Identifying Actionable Insights

Growing Importance of Analytics

Making the Right Connection

Finding the Right Rule

Examining All Options

Dynamic Case Management Capabilities

Sensing Big Changes

Edge Data Potential

Edge Data's Many Uses

Predictive Analytics' Tremendous Potential

Security Software's Growing Importance

IoT Devices and Security

Building Security from the Ground Up

Installing Barriers

Security Complexity



Importance of Application-Level Security Specialization

CHAPTER 5 MARKET BREAKDOWN BY TECHNOLOGY TYPE: IOT HARDWARE

Visibility

New Hardware Directions

Impact of Globalization

Embedded Systems

Sensors

Distributed Control Systems

Changing Plant Floor

Latest DSC Developments

Programmable Logic Controllers

PLC Functionality

PLC Advances

Next-Generation PLCs

PLC Improvements

CHAPTER 6 MARKET BREAKDOWN BY TECHNOLOGY TYPE: IOT NETWORKING

Fieldbus: First-Generation Industrial Networking

Ethernet's Legacy

Ethernet in the Factory

EtherNet/IP's Benefit

Seeing Stars

Meeting I/O Challenges

Monitoring Ethernet Connections

Simplifying Configurations

Network Optimization

Looking Ahead

Impact of Wireless Network Connections

Wi-Fi: A Popular Networking Option

HaLow Effect

Li-Fi Versus Wi-Fi

Bluetooth 5.0

Low on Bandwidth

Near-Field Communications

SigFox



CHAPTER 7 COMPANY PROFILES



List Of Tables

LIST OF TABLES

Summary Table: Global Market for IoT Process Manufacturing Technologies, by Type,

Through 2022

Table 1: Global Market for IoT Process Manufacturing Technologies, by Region,

Through 2022

Table 2: Internet of Things System Benefits

Table 3: Elements of the Internet of Things

Table 4: IoT Standards Bodies

Table 5: Global Market for IoT Process Manufacturing Software, by Type, Through 2022

Table 6: Global Market for IoT Process Manufacturing Platform Software, by End Use,

Through 2022

Table 7: Top Five IoT Process Manufacturing Software Platform Suppliers, 2017

Table 8: Top Five IoT Process Manufacturing Software Platform Oil and Gas Suppliers, 2017

Table 9: Top Five IoT Process Manufacturing Software Platform Food Suppliers, 2017

Table 10: Top Five IoT Process Manufacturing Software Platform Pharmaceuticals and Life Science Suppliers, 2017

Table 11: Top Five IoT Process Manufacturing Software Platform Plastics Suppliers, 2017

Table 12: Top Five IoT Process Manufacturing Software Platform Metals Suppliers, 2017

Table 13: Changing Data Management Platform, 1980s-2017

Table 14: Big Data Ecosystem

Table 15: Global Market for IoT Process Manufacturing Big Data Software, by End Use, Through 2022

Table 16: Top Five IoT Process Manufacturing Big Data Software Suppliers, 2017

Table 17: Top Five IoT Process Manufacturing Big Data Software Platforms, Oil and Gas Suppliers, 2017

Table 18: Top Five IoT Process Manufacturing Big Data Software, Food Suppliers, 2017

Table 19: Top Five IoT Process Manufacturing Big Data Software, Pharmaceuticals and Life Science Suppliers, 2017

Table 20: Top Five IoT Process Manufacturing Big Data Software, Plastics Suppliers, 2017

Table 21: Top Five IoT Process Manufacturing Big Data Software, Metals Suppliers, 2017

Table 22: Global Market for IoT Process Manufacturing Security Solutions, by End Use,



Through 2022

Table 23: Top Five IoT Process Manufacturing Security Solutions Suppliers, 2017

Table 24: Top Five IoT Process Manufacturing Security Solutions, Oil and Gas

Suppliers, 2017

Table 25: Top Five IoT Process Manufacturing Security Solutions, Food Suppliers, 2017

Table 26: Top Five IoT Process Manufacturing Security Solutions, Pharmaceuticals and

Life Science Suppliers, 2017

Table 27: Top Five IoT Process Manufacturing Security Solutions, Plastics Suppliers,

2017

Table 28: Top Five IoT Process Manufacturing Security Solutions, Metals Suppliers,

2017

Table 29: Global Market for IoT Process Manufacturing Hardware, by Technology,

Through 2022

Table 30: Global Market for IoT Process Manufacturing Sensors, by End Use, Through

2022

Table 31: Top Five IoT Process Manufacturing Sensor Suppliers, 2017

Table 32: Top Five IoT Process Software Manufacturing Sensor Oil and Gas Suppliers,

2017

Table 33: Top Five IoT Process Manufacturing Sensor Food Suppliers, 2017

Table 34: Top Five IoT Process Manufacturing Sensor Pharmaceuticals and Life

Science Suppliers, 2017

Table 35: Top Five IoT Process Manufacturing Sensor Plastics Suppliers, 2017

Table 36: Top Five IoT Process Manufacturing Sensor Metal Suppliers, 2017

Table 37: Plant Level System Design

Table 38: Global Market for IoT Process Manufacturing Distributed Control System, by

End Use, Through 2022

Table 39: Top Five IoT Process Manufacturing Distributed Control System Suppliers,

2017

Table 40: Top Five IoT Process Manufacturing Distributed Control System Suppliers,

2017

Table 41: Top Five IoT Process Manufacturing Distributed Control System Food

Suppliers, 2017

Table 42: Top Five IoT Process Manufacturing Distributed Control System

Pharmaceuticals and Life Science Suppliers, 2017

Table 43: Top Five IoT Process Manufacturing Distributed Control System Distributed

Control System Plastics Suppliers, 2017

Table 44: Top Five IoT Process Manufacturing Distributed Control System Metals

Suppliers, 2017

Table 45: Global Market for IoT Process Manufacturing Programmable Logic Controller,



by End Use, Through 2022

Table 46: Top Five IoT Process Manufacturing Programmable Logic Controller Suppliers, 2017

Table 47: Top Five IoT Process Manufacturing Programmable Logic Controller Oil and Gas Suppliers, 2017

Table 48: Top Five IoT Process Manufacturing Programmable Logic Controller Food Suppliers, 2017

Table 49: Top Five IoT Process Manufacturing Programmable Logic Controller Pharmaceuticals and Life Science Suppliers, 2017

Table 50: Top Five IoT Process Manufacturing Programmable Logic Controller Plastics Suppliers, 2017

Table 51: Top Five IoT Process Manufacturing Programmable Logic Controller Metal Suppliers, 2017

Table 52: Global Market for IoT Process Manufacturing Network Equipment, by Technology, Through 2022

Table 53: Fieldbus Designs

Table 54: EtherNet/IP's Potential Benefits

Table 55: Global Market for IoT Process Manufacturing Wired Network, by End Use, Through 2022

Table 56: Top Five IoT Process Manufacturing Wired Network Suppliers, 2017

Table 57: Top Five IoT Process Manufacturing Wired Network Oil and Gas Suppliers, 2017

Table 58: Top Five IoT Process Manufacturing Wired Network Food Suppliers, 2017

Table 59: Top Five IoT Process Manufacturing Wired Network Pharmaceuticals and Life Science Suppliers, 2017

Table 60: Top Five IoT Process Manufacturing Wired Network Plastic Suppliers, 2017

Table 61: Top Five IoT Process Manufacturing Wired Network Metal Suppliers, 2017

Table 62: Li-Fi System Capabilities

Table 63: Global Market for IoT Process Manufacturing Wireless Network Revenue, by End Use, Through 2022

Table 64: Top Five IoT Process Manufacturing Wireless Network Suppliers, 2017

Table 65: Top Five IoT Process Manufacturing Wireless Network Oil and Gas Suppliers, 2017

Table 66: Top Five IoT Process Manufacturing Wireless Network Food Suppliers, 2017

Table 67: Top Five IoT Process Manufacturing Wireless Network Pharmaceuticals and Life Science Suppliers, 2017

Table 68: Top Five IoT Process Manufacturing Wireless Network Plastics Suppliers, 2017

Table 69: Top Five IoT Process Manufacturing Wireless Network Metals Suppliers,



2017



List Of Figures

LIST OF FIGURES

Summary Figure: Global Market for IoT Process Manufacturing Technologies, by Type, 2016-2022

Figure 1: Global Market for IoT Process Manufacturing Technologies, by Region, 2016-2022

Figure 2: Global Market for IoT Process Manufacturing Software, by Type, 2016-2022

Figure 3: Global Market for IoT Process Manufacturing Platform Software, by End Use, 2016-2022

Figure 4: Global Market for IoT Solutions Process Manufacturing Big Data Software, by End Use, 2016-2022

Figure 5: Global Market for IoT Process Manufacturing Security Solutions, by End Use, 2016-2022

Figure 6: Global Market for IoT Process Manufacturing Hardware, by Technology, 2017-2022

Figure 7: Global Market for IoT Process Manufacturing Sensors, by End Use, 2017-2021

Figure 8: Global Market for IoT Process Manufacturing Distributed Control System, by End Use, 2016-2022

Figure 9: Global Market for IoT Process Manufacturing Programmable Logic Controller, by End Use, 2016-2022

Figure 10: Global Market for IoT Process Manufacturing Network Equipment, by Technology, 2016-2022

Figure 11: Factory Network Configuration

Figure 12: Ethernet Layers

Figure 13: Global Market for IoT Process Manufacturing Wired Network, by End Use, 2016-2022

Figure 14: Global Market for IoT Process Manufacturing Wireless Network Revenue, by End Use, 2016-2022



I would like to order

Product name: Internet of Things (IoT) Technologies for Process Manufacturing: Global Markets

Product link: https://marketpublishers.com/r/l183DEAAD4EEN.html

Price: US\$ 1,250.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/l183DEAAD4EEN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:	
Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970