

## TECHNOLOGY PLATFORMS FOR THE INTERNET OF THINGS (IOT)



IFT129A

Nandita Bhotika  
*Project Analyst*

ISBN:



**BCC Research**  
49 Walnut Park, Building 2  
Wellesley, MA 02481 USA  
866-285-7215 (toll-free within the USA),  
or (+1) 781-489-7301  
[www.bccresearch.com](http://www.bccresearch.com)  
[information@bccresearch.com](mailto:information@bccresearch.com)

**TABLE OF CONTENTS**

<b>TOPIC</b>	<b>PAGE NO.</b>
CHAPTER 1 INTRODUCTION	2
STUDY GOALS AND OBJECTIVES	2
REASONS FOR DOING THE STUDY	2
SCOPE OF REPORT	3
INTENDED AUDIENCE	3
INFORMATION SOURCES	3
ANALYST'S CREDENTIALS	4
RELATED BCC RESEARCH REPORTS	4
BCC RESEARCH WEBSITE	4
DISCLAIMER	5
CHAPTER 2 SUMMARY	7
<i>SUMMARY TABLE GLOBAL MARKET FOR IOT PLATFORMS, BY DEPLOYMENT TYPE, THROUGH 2021 (\$ MILLIONS)</i>	7
<i>SUMMARY FIGURE GLOBAL MARKET FOR IOT PLATFORMS, BY DEPLOYMENT TYPE, 2015-2021 (\$ MILLIONS)</i>	7
CHAPTER 3 OVERVIEW	10
IOT TECHNOLOGIES	10
ELEMENTS OF AN IOT PLATFORM SOLUTION	11
<i>FIGURE 1 BASIC ELEMENTS OF AN IOT PLATFORM ARCHITECTURE</i>	11
UTILITY OF IOT PLATFORMS	12
OVERVIEW OF THE IOT PLATFORMS MARKET	13
DEVELOPMENT OF M2M/IOT SOLUTIONS	13
<i>FIGURE 2 TECHNOLOGY DEVELOPMENT CURVE FOR M2M AND IOT PLATFORMS, 2000-2024</i>	14
FUTURE MARKETS FOR IOT PLATFORMS	15
<i>TABLE 1 GLOBAL MARKET FOR IOT PLATFORMS, BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)</i>	16
<i>FIGURE 3 GLOBAL MARKET FOR IOT PLATFORMS, BY PLATFORM TYPE, 2015-2021 (\$ MILLIONS)</i>	16
GOVERNMENT REGULATIONS	17
CHAPTER 4 APPLICATION ENABLEMENT IOT PLATFORMS	20
OVERVIEW OF APPLICATION PLATFORMS	20
<i>FIGURE 4 ELEMENTS OF A BASIC APPLICATION ENABLEMENT PLATFORM SYSTEM</i>	20
MARKET SIZE AND FORECASTS	21
<i>TABLE 2 GLOBAL MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)</i>	21
INDUSTRY TRENDS AND MARKET SHARES	22
<i>TABLE 3 GLOBAL MARKET REVENUE AND SHARE FOR APPLICATION ENABLEMENT IOT PLATFORM VENDORS, 2015 (\$ MILLIONS, %)</i>	23
<i>FIGURE 5 GLOBAL MARKET SHARE FOR APPLICATION ENABLEMENT IOT PLATFORM VENDORS, 2015 (%)</i>	23
PTC-ThingWorx IoT Platform	24
Telit-deviceWISE Platform	25
Cumulocity AEP	25

<b>TOPIC</b>	<b>PAGE NO.</b>
Gemalto-SensorLogic AEP	26
Xively IoT AEP	26
Arrayent Connect Cloud	26
SeeControl AEP	27
ABO Data	27
Bosch Software Innovations	27
2lemetry	28
REVENUES BY REGIONAL MARKETS	28
<i>TABLE 4 GLOBAL MARKET FOR APPLICATION ENABLEMENT PLATFORMS BY REGION, THROUGH 2021 (\$ MILLIONS)</i>	29
<i>FIGURE 6 GLOBAL MARKET FOR APPLICATION ENABLEMENT PLATFORMS BY REGION, 2015-2021 (\$ MILLIONS)</i>	29
ACQUISITIONS OF APPLICATION PLATFORMS	29
<i>TABLE 5 KEY ACQUISITIONS OF APPLICATION ENABLEMENT IOT PLATFORMS, 2011-2015 (\$ MILLIONS)</i>	30
PARTNERSHIPS IN THE AEP MARKET	30
<i>TABLE 6 RECENT PARTNERSHIPS OF AEP VENDORS WITH SOLUTION PROVIDERS</i>	31
FUTURE AEP TECHNOLOGY TRENDS	31
OPEN STANDARDS FOR APPLICATION DEVELOPMENT	31
CHAPTER 5 DATA INTELLIGENCE SOLUTIONS	34
OVERVIEW	34
NEED FOR M2M/IOT DATA INTELLIGENCE SOLUTIONS	34
VOLUME	34
VARIETY	34
VELOCITY	34
VERACITY	34
KEY SYSTEM COMPONENTS OF DATA INTELLIGENCE SOLUTIONS	35
DATA MANAGEMENT SYSTEMS	35
VISUAL ANALYTICS	35
DATA ANALYTICS	35
DATA WAREHOUSE	35
DEVICE CLOUDS	35
APPLICATION OF IOT DATA INTELLIGENCE SOLUTIONS	36
MONITORING AND DIAGNOSTICS OF DEVICES	36
SECURITY, SAFETY AND COMPLIANCE	36
PREVENTATIVE MAINTENANCE AND ASSET LIFECYCLE MANAGEMENT	36
DATA INTELLIGENCE SOLUTIONS MARKET OVERVIEW	36
FUTURE MARKET TRENDS	37
SOLUTION PROVIDERS	37
GE-PREDIX CLOUD	37
AMAZON-KINESIS	38
SPLUNK	38
PTC-COLDLIGHT	38
BOSCH SOFTWARE INNOVATIONS-BIG DATA PROCESSING	38
TECHNOLOGY DEVELOPMENTS IN M2M/IOT DATA INTELLIGENCE	39
TIME SERIES DATA ANALYTICS	39
MACHINE LEARNING	39

TOPIC	PAGE NO.
FOG COMPUTING	39
CHAPTER 6 DEVICE MANAGEMENT IOT PLATFORMS	42
OVERVIEW OF DEVICE MANAGEMENT PLATFORM	42
COMMON FUNCTIONALITIES OF A DEVICE MANAGEMENT IOT PLATFORM	42
DEVICE COMMUNICATION PROTOCOLS	43
DEVICE MANAGEMENT IOT PLATFORMS MARKET SIZE AND FORECASTS	44
<i>TABLE 7 GLOBAL MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)</i>	44
MARKET PLAYERS AND REVENUE SHARES	44
<i>TABLE 8 GLOBAL MARKET REVENUE AND SHARE FOR DEVICE MANAGEMENT IOT PLATFORM VENDORS, 2015 (\$ MILLIONS, %)</i>	44
<i>FIGURE 7 GLOBAL MARKET SHARE FOR DEVICE MANAGEMENT IOT PLATFORM VENDORS, 2015 (%)</i>	45
ALCATEL LUCENT (MFORMATION)	46
DIGI INTERNATIONAL	46
TIBBO SYSTEMS	46
EUROTECH	46
AVANQUEST	47
INTEL-WIND RIVER	47
AERIS COMMUNICATIONS	47
M2MI (MACHINE TO MACHINE INTELLIGENCE)	48
ARM	48
BOSCH SOFTWARE INNOVATIONS	48
IBM	48
REVENUES BY REGIONAL MARKETS	49
<i>TABLE 9 GLOBAL MARKET FOR DEVICE MANAGEMENT IOT PLATFORMS BY REGION, THROUGH 2021 (\$ MILLIONS)</i>	49
<i>FIGURE 8 GLOBAL MARKET FOR DEVICE MANAGEMENT IOT PLATFORMS BY REGION, 2015-2021 (\$ MILLIONS)</i>	49
ACQUISITIONS	50
<i>TABLE 10 KEY ACQUISITIONS OF DEVICE MANAGEMENT IOT PLATFORMS, 2009-2015</i>	50
FUTURE TECHNOLOGY TRENDS IN DEVICE MANAGEMENT PLATFORMS	51
ABSTRACTION OF DEVICE STATE	51
DEVICE PROTOCOLS AND STANDARDIZATION	51
CHAPTER 7 NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS	53
OVERVIEW OF NETWORK CONNECTIVITY MANAGEMENT PLATFORMS	53
NETWORK CONNECTIVITY TECHNOLOGIES	53
WIDE AREA WIRELESS NETWORK TECHNOLOGIES	53
Cellular Connectivity	54
Low-power, Wide Area Networks	54
Non-cellular WAN Technologies	54
SHORT-RANGE WIRELESS NETWORK TECHNOLOGIES	55
Wired Connectivity Technologies	56
<i>TABLE 11 GLOBAL MARKET FOR IOT PLATFORMS BY NETWORK CONNECTIVITY TYPE, THROUGH 2021 (\$ MILLIONS)</i>	56

TOPIC	PAGE NO.
COMMON FEATURES AND FUNCTIONALITIES OF M2M CONNECTIVITY PLATFORMS	56
NETWORK CONNECTIVITY IOT PLATFORM MARKET OVERVIEW	57
MARKET DRIVERS	57
MARKET CHALLENGES	58
MARKET SIZE AND FORECASTS	58
<i>TABLE 12 GLOBAL MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)</i>	59
INDUSTRY PLAYERS AND MARKET SHARES	59
<i>TABLE 13 GLOBAL MARKET REVENUE AND SHARE FOR NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS BY VENDOR, 2015 (\$ MILLIONS/%)</i>	61
<i>FIGURE 9 GLOBAL MARKET SHARE FOR NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS BY VENDOR, 2015 (%)</i>	61
Jasper Technologies	62
Ericsson	62
Sierra Wireless	62
KORE Telematics	63
Aeris Communications	63
Vodafone	64
KEY ACQUISITIONS	64
<i>TABLE 14 ANALYSIS OF KEY ACQUISITIONS IN THE NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS MARKET, 2011-2016</i>	64
KEY PARTNERSHIPS	65
JASPER'S PARTNERSHIP NETWORK	65
ERICSSON'S PARTNERSHIP NETWORK	66
<i>TABLE 15 GLOBAL PARTNERSHIPS BY IOT PLATFORM VENDORS, 2015</i>	66
REVENUES BY REGIONAL MARKETS	67
<i>TABLE 16 GLOBAL MARKET FOR NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS BY REGION, THROUGH 2021 (\$ MILLIONS)</i>	68
<i>FIGURE 10 GLOBAL MARKET FOR NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS BY REGION, 2015-2021 (\$ MILLIONS)</i>	68
REGIONAL PARTNERSHIPS	69
FUTURE TECHNOLOGY TRENDS	69
CAPILLARY GATEWAYS	70
LTE-M AND 5G	70
CHAPTER 8 INDUSTRY APPLICATIONS OF IOT PLATFORMS	72
<i>TABLE 17 GLOBAL MARKET FOR NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS BY INDUSTRY, THROUGH 2021 (\$ MILLIONS)</i>	72
<i>FIGURE 11 GLOBAL MARKET FOR NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS BY INDUSTRY, 2015-2021 (\$ MILLIONS)</i>	72
CONSUMER IOT MARKET	73
<i>TABLE 18 GLOBAL MARKET FOR PLATFORMS BY APPLICATION IN THE CONSUMER IOT MARKET BY INDUSTRY, THROUGH 2021 (\$ MILLIONS)</i>	74
SMART HOMES	74
PUBLIC SECTOR/GOVERNMENT-CONTROLLED APPLICATIONS	75
<i>TABLE 19 GLOBAL MARKET FOR PLATFORMS BY APPLICATIONS IN GOVERNMENT IOT MARKET BY APPLICATION, THROUGH 2021 (\$ MILLIONS)</i>	75
SMART CITIES	75
SMART ENERGY GRID AND INTELLIGENT METERING	76

<b>TOPIC</b>	<b>PAGE NO.</b>
PUBLIC SAFETY SYSTEM	76
INDUSTRIAL APPLICATIONS	76
<i>TABLE 20 GLOBAL MARKET FOR PLATFORMS IN THE INDUSTRIAL IOT MARKET BY APPLICATION, THROUGH 2021 (\$ MILLIONS)</i>	78
MANUFACTURING PROCESS MANAGEMENT	78
MACHINERY MONITORING AND CONTROLS	79
ENTERPRISE APPLICATIONS	79
<i>TABLE 21 GLOBAL MARKET FOR PLATFORMS IN THE ENTERPRISE IOT MARKET BY APPLICATION, THROUGH 2021 (\$ MILLIONS)</i>	80
<i>TABLE 22 GLOBAL MARKET FOR PLATFORMS BY ENTERPRISE SIZE, THROUGH 2021 (\$ MILLIONS)</i>	81
SMART SENSOR RETAIL PLATFORMS	81
REMOTE PATIENT HEALTH MONITORING	82
CONSTRUCTION INDUSTRY ASSET TRACKING	83
TELEMATICS FOR CONNECTED CARS	84
CHAPTER 9 REGIONAL MARKETS FOR IOT PLATFORMS	86
MARKET OVERVIEW	86
REGIONAL BARRIERS TO MARKET ENTRY	86
GOVERNMENT REGULATIONS THAT FORBID THE STORAGE OF DATA OUTSIDE THE COUNTRY'S JURISDICTIONAL LIMITS	86
LIMITED AWARENESS OF IOT PLATFORMS AND THEIR BENEFITS	86
SECURITY AND PRIVACY ISSUES	87
PROPRIETARY PLATFORMS NOT COMPATIBLE WITH REGIONAL DEVICES	87
LOCAL LANGUAGE SUPPORT	87
REGIONAL MARKET SIZE	87
<i>TABLE 23 GLOBAL MARKET FOR IOT PLATFORMS BY REGION, THROUGH 2021 (\$ MILLIONS)</i>	87
<i>FIGURE 12 GLOBAL MARKET FOR IOT PLATFORMS BY REGION, 2015-2021 (\$ MILLIONS)</i>	88
NORTH AMERICAN MARKET	88
<i>TABLE 24 NORTH AMERICAN MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)</i>	89
Canada	89
U.S.	89
Latin America	90
Telefonica's Vivo M2M Platform	90
<i>TABLE 25 LATIN AMERICAN MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)</i>	91
EUROPEAN MARKET	91
<i>TABLE 26 EUROPEAN MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)</i>	92
U.K.	93
Germany	93
MEA MARKET	93
<i>TABLE 27 MEA MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)</i>	94
ASIA-PACIFIC MARKET	94
<i>TABLE 28 ASIA-PACIFIC MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)</i>	95

<b>TOPIC</b>	<b>PAGE NO.</b>
Market Potential in China for M2M/IoT Platforms	96
Key Chinese Market Players and Their Platforms	96
Industry Applications of IoT in the Chinese Market	97
Market Potential in Japan	98
<b>CHAPTER 10 MARKET ANALYSIS FOR CLOUD-BASED IOT PLATFORMS</b>	<b>100</b>
IOT PLATFORM DEPLOYMENT OPTIONS	100
ON-PREMISE	100
CLOUD-BASED IOT PLATFORMS	100
HYBRID	100
ON-EDGE COMPUTING	101
BENEFITS OF CLOUD-BASED IOT PLATFORMS	101
TYPES OF CLOUD-BASED IOT PLATFORMS	101
SOFTWARE AS A SERVICE	101
<i>TABLE 29 GLOBAL MARKET FOR SOFTWARE-AS-A-SERVICE (SAAS) IOT PLATFORMS BY VENDOR, 2015 (\$ MILLIONS)</i>	102
PLATFORM AS A SERVICE	102
<i>TABLE 30 GLOBAL MARKET FOR PLATFORM AS A SERVICE (PAAS) IOT PLATFORMS BY VENDOR, 2015 (\$ MILLIONS)</i>	103
<i>TABLE 31 COMPETITIVE COMPARISON OF CLOUD-BASED PAAS IOT PLATFORMS BY LEADING IT SOLUTION PROVIDERS</i>	104
Amazon-AWS for IoT	104
Microsoft-Azure IoT Suite	105
IBM-Internet of Things Foundation	105
SAP-HANA Cloud Platform IoT Services	105
Salesforce.com	106
GOVERNMENT REGULATIONS REGARDING CLOUD STORAGE OF DATA	106
MARKET OVERVIEW	107
<i>TABLE 32 GLOBAL MARKET FOR CLOUD AND ON-PREMISE IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)</i>	108
<i>FIGURE 13 GLOBAL MARKET FOR CLOUD AND ON-PREMISE IOT PLATFORMS BY PLATFORM TYPE, 2015-2021 (\$ MILLIONS)</i>	108
<b>CHAPTER 11 TECHNOLOGY TRENDS IN IOT PLATFORMS</b>	<b>111</b>
STANDARDS IN IOT	111
DEVELOPMENT OF OPEN PLATFORMS	111
CHALLENGES IN STANDARDS DEVELOPMENT	112
DATA ANALYTICS	112
DATA SECURITY	113
IOT DEVICE PROTOCOL STANDARDS	113
FUTURE TECHNOLOGY REQUIREMENTS FOR IOT PLATFORMS	115
NEW DEVELOPMENTS IN IOT PLATFORM TECHNOLOGY IN 2015	116
LAUNCH OF THE OPENFOG CONSORTIUM	116
FEDERATION	116
<b>CHAPTER 12 INDUSTRY STRUCTURE AND COMPETITIVE ANALYSIS</b>	<b>118</b>
OVERVIEW OF THE IOT INDUSTRY	118
MARKET DRIVERS	118

TOPIC	PAGE NO.
MARKET CHALLENGES	119
EVOLVING MARKET SOLUTIONS	120
DATA SECURITY ISSUES	120
STANDARDS-BASED PROTOCOLS	121
OPENING COMMERCIAL USE FOR COMMUNICATION BANDWIDTH	121
VENDOR MARKET ANALYSIS	121
GROWTH IN IOT DEVICES MARKET DRIVING PLATFORM DEMAND	122
PLATFORMS VENDOR MARKET FRAGMENTED	122
MERGERS AND ACQUISITIONS	123
TYPES OF VENDORS	123
<i>TABLE 33 GLOBAL MARKET FOR PLATFORM DEVELOPMENT BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)</i>	124
TOP IOT PLATFORM VENDORS AND MARKET SHARE	125
JASPER TECHNOLOGIES	125
PTC	126
ERICSSON	126
TELIT	126
SIERRA WIRELESS	127
CUMULOCITY	127
<i>TABLE 34 GLOBAL MARKET REVENUE AND SHARE FOR IOT PLATFORMS BY VENDOR, 2015 (\$ MILLIONS, %)</i>	128
<i>FIGURE 14 GLOBAL MARKET SHARE FOR IOT PLATFORMS BY VENDOR, 2015 (%)</i>	129
MARKET LEADER STRATEGIES	129
MARKET COMPETITION	130
IN-HOUSE DEVELOPED VERSUS THIRD-PARTY SOLUTIONS	130
EMERGING LEADERS THROUGH MARKET CONSOLIDATION	130
BUILDING ON STRATEGIC PARTNERSHIPS	131
CONSENSUS FOR STANDARDS BASED PLATFORMS GROWING	131
BUSINESS AND TECHNOLOGY MODELS	132
PROPRIETARY PLATFORMS	132
OPEN STANDARDS-BASED	132
NICHE APPLICATIONS PLATFORMS	132
GENERIC HORIZONTAL PLATFORMS	133
SALES AND DISTRIBUTION CHANNELS	133
PRICING MODELS	134
PRICING STRUCTURE FOR IBM'S IOT FOUNDATION PLATFORM	135
PRICING STRUCTURE FOR AMAZON'S AWS IOT PLATFORM	135
PRICING STRUCTURE FOR ARRAYENT CONNECT IOT PLATFORM	135
VENTURE CAPITAL FUNDING	135
<i>TABLE 35 KEY VENTURE FUNDING FOR IOT PLATFORMS VENDORS, THROUGH 2015 (\$ MILLIONS)</i>	136
PARTNERSHIPS	137
PARTNERSHIPS WITH SOLUTION PROVIDERS	137
PARTNERSHIPS THROUGH INDUSTRY ALLIANCES	138
PARTNERSHIPS THROUGH REGIONAL ALLIANCES	139
European Union	139
Asia-Pacific	140
Latin America	140



<b>TOPIC</b>	<b>PAGE NO.</b>
Global Partnerships	140
MARKET SEGMENTATION	141
BY TYPE OF USER	141
BY TYPE OF VENDOR	141
<i>TABLE 36 GLOBAL MARKET FOR IOT PLATFORMS BY VENDOR TYPE, THROUGH 2021 (\$ MILLIONS)</i>	143
KEY ACQUISITIONS (2009-2016)	143
<i>TABLE 37 KEY ACQUISITIONS IN THE IOT PLATFORMS MARKET, THROUGH 2016 (\$ MILLIONS)</i>	143
CISCO-JASPER ACQUISITION	144
PTC-THINGWORX, AXEDA AND KEPWARE ACQUISITIONS	144
MARKET TRENDS IN 2015	145
LAUNCH OF A NUMBER OF PAAS IOT PLATFORMS BY MAJOR SOFTWARE VENDORS	145
EMERGING ENTERPRISE IOT STARTUPS	145
ACTIVE M&A ENVIRONMENT	145
CHAPTER 13 COMPANY PROFILES	147
2LEMETRY (AMAZON)	147
ABO DATA	147
ALCATEL-LUCENT (MFORMATION)	148
AMAZON	148
ARRAYENT	148
AT&T	149
AUTODESK (SEECONTROL)	149
AVANQUEST	149
AYLA NETWORKS	150
BOSCH SOFTWARE INNOVATIONS	150
CARRIOTS	151
COMARCH	151
CONCIRRUS	151
CUMULOCITY	152
DAVRA NETWORKS	152
DEVICE INSIGHT	152
EVRYTHNG	153
EXOSITE	153
GEMALTO M2M (SENSORLOGIC)	153
GENERAL ELECTRIC	154
JASPER TECHNOLOGIES	154
KOMBRIDGE	154
KORE TELEMATICS (RACO WIRELESS)	155
LOGMEIN (XIVELY/PACHUBE)	155
MACHINE 2 MACHINE INTELLIGENCE CORP. (M2MI)	155
MTHINX INTEGRATED TECHNOLOGIES	156
NUMEREX	156
PTC (THINGWORX AND AXEDA)	157
SIERRA WIRELESS	157
TELIT (ILS TECHNOLOGIES)	157

<b>TOPIC</b>	<b>PAGE NO.</b>
TELENITY	158
ZEBRA TECHNOLOGIES	158
CHAPTER 14 PATENT ANALYSIS	160
PATENTS FOR DEVICE CONNECTION AND MANAGEMENT	160
PATENTS FOR DATA MANAGEMENT PLATFORMS	160

**LIST OF TABLES**

<b>TABLE HEADING</b>	<b>PAGE NO.</b>
SUMMARY TABLE GLOBAL MARKET FOR IOT PLATFORMS, BY DEPLOYMENT TYPE, THROUGH 2021 (\$ MILLIONS)	7
TABLE 1 GLOBAL MARKET FOR IOT PLATFORMS, BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)	16
TABLE 2 GLOBAL MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)	21
TABLE 3 GLOBAL MARKET REVENUE AND SHARE FOR APPLICATION ENABLEMENT IOT PLATFORM VENDORS, 2015 (\$ MILLIONS, %)	23
TABLE 4 GLOBAL MARKET FOR APPLICATION ENABLEMENT PLATFORMS BY REGION, THROUGH 2021 (\$ MILLIONS)	29
TABLE 5 KEY ACQUISITIONS OF APPLICATION ENABLEMENT IOT PLATFORMS, 2011-2015 (\$ MILLIONS)	30
TABLE 6 RECENT PARTNERSHIPS OF AEP VENDORS WITH SOLUTION PROVIDERS	31
TABLE 7 GLOBAL MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)	44
TABLE 8 GLOBAL MARKET REVENUE AND SHARE FOR DEVICE MANAGEMENT IOT PLATFORM VENDORS, 2015 (\$ MILLIONS, %)	44
TABLE 9 GLOBAL MARKET FOR DEVICE MANAGEMENT IOT PLATFORMS BY REGION, THROUGH 2021 (\$ MILLIONS)	49
TABLE 10 KEY ACQUISITIONS OF DEVICE MANAGEMENT IOT PLATFORMS, 2009-2015	50
TABLE 11 GLOBAL MARKET FOR IOT PLATFORMS BY NETWORK CONNECTIVITY TYPE, THROUGH 2021 (\$ MILLIONS)	56
TABLE 12 GLOBAL MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)	59
TABLE 13 GLOBAL MARKET REVENUE AND SHARE FOR NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS BY VENDOR, 2015 (\$ MILLIONS/%)	61
TABLE 14 ANALYSIS OF KEY ACQUISITIONS IN THE NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS MARKET, 2011-2016	64
TABLE 15 GLOBAL PARTNERSHIPS BY IOT PLATFORM VENDORS, 2015	66
TABLE 16 GLOBAL MARKET FOR NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS BY REGION, THROUGH 2021 (\$ MILLIONS)	68
TABLE 17 GLOBAL MARKET FOR NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS BY INDUSTRY, THROUGH 2021 (\$ MILLIONS)	72
TABLE 18 GLOBAL MARKET FOR PLATFORMS BY APPLICATION IN THE CONSUMER IOT MARKET BY INDUSTRY, THROUGH 2021 (\$ MILLIONS)	74
TABLE 19 GLOBAL MARKET FOR PLATFORMS BY APPLICATIONS IN GOVERNMENT IOT MARKET BY APPLICATION, THROUGH 2021 (\$ MILLIONS)	75
TABLE 20 GLOBAL MARKET FOR PLATFORMS IN THE INDUSTRIAL IOT MARKET BY APPLICATION, THROUGH 2021 (\$ MILLIONS)	78
TABLE 21 GLOBAL MARKET FOR PLATFORMS IN THE ENTERPRISE IOT MARKET BY APPLICATION, THROUGH 2021 (\$ MILLIONS)	80
TABLE 22 GLOBAL MARKET FOR PLATFORMS BY ENTERPRISE SIZE, THROUGH 2021 (\$ MILLIONS)	81
TABLE 23 GLOBAL MARKET FOR IOT PLATFORMS BY REGION, THROUGH 2021 (\$ MILLIONS)	87
TABLE 24 NORTH AMERICAN MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)	89
TABLE 25 LATIN AMERICAN MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)	91
TABLE 26 EUROPEAN MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)	92

<b>TABLE HEADING</b>	<b>PAGE NO.</b>
TABLE 27 MEA MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)	94
TABLE 28 ASIA-PACIFIC MARKET FOR IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)	95
TABLE 29 GLOBAL MARKET FOR SOFTWARE-AS-A-SERVICE (SAAS) IOT PLATFORMS BY VENDOR, 2015 (\$ MILLIONS)	102
TABLE 30 GLOBAL MARKET FOR PLATFORM AS A SERVICE (PAAS) IOT PLATFORMS BY VENDOR, 2015 (\$ MILLIONS)	103
TABLE 31 COMPETITIVE COMPARISON OF CLOUD-BASED PAAS IOT PLATFORMS BY LEADING IT SOLUTION PROVIDERS	104
TABLE 32 GLOBAL MARKET FOR CLOUD AND ON-PREMISE IOT PLATFORMS BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)	108
TABLE 33 GLOBAL MARKET FOR PLATFORM DEVELOPMENT BY PLATFORM TYPE, THROUGH 2021 (\$ MILLIONS)	124
TABLE 34 GLOBAL MARKET REVENUE AND SHARE FOR IOT PLATFORMS BY VENDOR, 2015 (\$ MILLIONS, %)	128
TABLE 35 KEY VENTURE FUNDING FOR IOT PLATFORMS VENDORS, THROUGH 2015 (\$ MILLIONS)	136
TABLE 36 GLOBAL MARKET FOR IOT PLATFORMS BY VENDOR TYPE, THROUGH 2021 (\$ MILLIONS)	143
TABLE 37 KEY ACQUISITIONS IN THE IOT PLATFORMS MARKET, THROUGH 2016 (\$ MILLIONS)	143

**LIST OF FIGURES**

<b>FIGURE TITLE</b>	<b>PAGE NO.</b>
SUMMARY FIGURE GLOBAL MARKET FOR IOT PLATFORMS, BY DEPLOYMENT TYPE, 2015-2021 (\$ MILLIONS)	7
FIGURE 1 BASIC ELEMENTS OF AN IOT PLATFORM ARCHITECTURE	11
FIGURE 2 TECHNOLOGY DEVELOPMENT CURVE FOR M2M AND IOT PLATFORMS, 2000-2024	14
FIGURE 3 GLOBAL MARKET FOR IOT PLATFORMS, BY PLATFORM TYPE, 2015-2021 (\$ MILLIONS)	16
FIGURE 4 ELEMENTS OF A BASIC APPLICATION ENABLEMENT PLATFORM SYSTEM	20
FIGURE 5 GLOBAL MARKET SHARE FOR APPLICATION ENABLEMENT IOT PLATFORM VENDORS, 2015 (%)	23
FIGURE 6 GLOBAL MARKET FOR APPLICATION ENABLEMENT PLATFORMS BY REGION, 2015-2021 (\$ MILLIONS)	29
FIGURE 7 GLOBAL MARKET SHARE FOR DEVICE MANAGEMENT IOT PLATFORM VENDORS, 2015 (%)	45
FIGURE 8 GLOBAL MARKET FOR DEVICE MANAGEMENT IOT PLATFORMS BY REGION, 2015-2021 (\$ MILLIONS)	49
FIGURE 9 GLOBAL MARKET SHARE FOR NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS BY VENDOR, 2015 (%)	61
FIGURE 10 GLOBAL MARKET FOR NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS BY REGION, 2015-2021 (\$ MILLIONS)	68
FIGURE 11 GLOBAL MARKET FOR NETWORK CONNECTIVITY MANAGEMENT IOT PLATFORMS BY INDUSTRY, 2015-2021 (\$ MILLIONS)	72
FIGURE 12 GLOBAL MARKET FOR IOT PLATFORMS BY REGION, 2015-2021 (\$ MILLIONS)	88
FIGURE 13 GLOBAL MARKET FOR CLOUD AND ON-PREMISE IOT PLATFORMS BY PLATFORM TYPE, 2015-2021 (\$ MILLIONS)	108
FIGURE 14 GLOBAL MARKET SHARE FOR IOT PLATFORMS BY VENDOR, 2015 (%)	129