

Big Data in Internet of Things (IoT): Key Trends, Opportunities and Market Forecasts 2015 - 2020

Product ID R-1504BDI | Research Report: 129 pages, published April 2015



- Single user license \$2,995
- Team license \$3,995
- Companywide license \$6,995

Related Courses and Curricula

- [Telecom for non-engineers](#)

Report in a Nutshell

Billions of devices generate data associated with various enterprise and consumer lifestyle events such as shopping activity, utility usage and other smart grid data, advertisement response, status of goods in transport, weather forecasts, traffic conditions, vehicle maintenance, public transport, downloads and usage of applications, and much more.

Big Data and Analytics software and applications will play a crucial role in making IoT a success. The data generated through sensors embedded in various things/objects will generate massive amounts of unstructured (big) data on real-time basis that holds the promise for intelligence and insights for dramatically improved decision processes. However, Big Data in IoT is different than conventional IoT and thus will require more robust, agile and scalable platforms, analytics tools, and data storage systems than conventional Big Data infrastructure.

This research provides in depth qualitative analysis as well as forecasts through 2020. The report evaluates key business trends in Big Data deployments relative to IoT and assesses what companies in this area are doing to generate a strong market share. All purchases of our reports include time with an expert analyst who will help you link key findings in the report to the business issues you're addressing. This needs to be used within three months of purchasing the report.

Target Audience

- Semiconductor companies
- Telecom network operators
- Embedded systems companies
- Telecom infrastructure suppliers
- Big Data and analytics companies
- Data as a Service (DaaS) companies
- Application developers and aggregators
- Cloud-based service providers of all types
- Managed service and middleware companies
- Data processing and management companies
- Application Programmer Interface (API) companies
- Identity management, privacy, and security companies
- Public investment organizations including investment banks
- Sensor, presence, location, and detection solution providers
- Private investment including hedge funds and private equity

Report Benefits

- Forecasts (global, regional, and by industry) to 2020
- Understand the role and importance of Big Data in IoT
- Identify the early beneficiaries and longer-term winners
- Identify key market issues and drivers for Big Data in IoT
- Identify leading companies for Big Data and Analytics in IoT
- Identify emerging trends and implications for Big Data in IoT
- Understand the emerging vendor ecosystem for Big Data in IoT
- Understand the impact on infrastructure, products, and services
- Learn about the differences between Big Data with and without IoT
- Identify areas for infrastructure, platform, and software investment

Table of Contents

1	Introduction	8	
1.1	Scope of the Research	9	
1.2	Target Audience	10	
1.3	Companies in Report	11	
2	Executive Summary	13	
3	Big Data in IoT	16	
3.1	By 2020, 50 billion IoT will generate 40 Zetabytes of Data		16
3.2	Big Data Framework for IoT	17	

3.3	Need for New Protocols, Platforms, Streaming and Parsing, Software and Analytical Tools	19
3.3.1	Big Data in IoT will need Unified Logging Layer	20
3.3.1.1	Fluentd	20
3.3.2	Big Data in IoT will require Lightweight Data Interchange Format	21
3.3.2.1	JSON (JavaScript Object Notation)	21
3.3.3	Big Data in IoT will use Lightweight Protocols	22
3.3.3.1	OASIS MQTT (Message Queuing Telemetry Transport)	22
3.3.3.1.1	MQTT v3.1.1 is now Open Source OASIS Standard	23
3.3.3.2	XMPP (Extensible Messaging and Presence Protocol)	25
3.3.3.3	AMQP (Advanced Message Queuing Protocol)	25
3.3.4	Big Data in IoT will need Protocol for Network Interoperability	26
3.3.4.1	Data Distribution Service (DDS)	26
3.3.5	Big Data in IoT Demands Data Processing on Appropriate Scale	27
3.4	Big Data in IoT Challenges	28
3.4.1.1	Storage of Scalable High-volume Data	28
3.4.1.2	Data Management and Processing Raw Data: Difficult Task in Multivendor Environment	30
3.4.2	Data Security and Personal Information Privacy are the Biggest Hurdles	31
4	Key Trends for Big Data in IoT Business	32
4.1	Large Companies will Lead through M&A and Partnership with Start-ups	32
4.2	Big Data as a Service will take Major Market Share	33
4.3	Established Companies in M2M Analytics and Cloud Services will be Early Beneficiaries	34
4.4	Flexible and Scalable Revenue Model for Big Data Services will be Most Successful	35
4.5	Big Data brings 40% Savings in Operational Activities and 35% New Business Generation	36
5	Vendor Ecosystem: Big Data in IoT	38
5.1	AGT offers Cloud based Analytical Platform for IoT	38
5.2	AT&T's M2X: Cloud-based Data Storage Service and Management Toolset Designed for IoT	39
5.3	Bosch Innovation offers Big Data Processing (BDP) for Data Analysis	40
5.4	Cisco IOX Framework and Fog Computing: Compute, Store, and Analyze Data at the Edge	41
5.5	GE Software Launched 24 Predictivity Solutions and GE Predix Platform	42
5.6	Intel Provides Cloud based Analytics System for IoT	46
5.7	MongoDB released Ver. 3.0 Database System	46
5.8	ParStream released New Version of its Analytical Platform	47
5.9	Real Time Innovation and Connex DDS: Comprehensive Messaging Platform	48
6	Big Data in IoT Market Forecast 2015 - 2020	50
6.1	Global IoT Deployment will become a \$1.5 Trillion Market by 2020	50
6.1.1	Consumer IoT	51
6.1.2	Industrial IoT (IIoT)	52

6.2	Big Data in IoT Markets 2015 - 2020	56	
6.3	Markets for Big Data Products/Services for IoT 2015 - 2020	58	
6.3.1	Markets for Big Data Collection Infrastructure in IoT 2015 - 2020	63	
6.3.2	Markets for Big Data Storage Infrastructure in IoT 2015 - 2020	66	
6.3.3	Markets for Big Data Analytics and Application Infrastructure in IoT 2015 - 2020	69	
6.3.4	Markets for Big Data as a Service in IoT 2015 - 2020	73	
6.4	Big Data in IoT by Industry 2015 - 2020	76	
6.4.1	Big Data in IoT for HVAC 2015 - 2020	79	
6.4.2	Big Data in IoT for Consumer Electronics 2015 - 2020	83	
6.4.3	Big Data in IoT for Healthcare 2015 - 2020	87	
6.4.4	Big Data in IoT for Manufacturing 2015 - 2020	90	
6.4.5	Big Data in IoT for Oil and Gas 2015 - 2020	92	
6.4.6	Big Data in IoT for Transport and Cargo 2015 - 2020	95	
6.4.7	Big Data in IoT for Utility 2015 - 2020	97	
6.5	Regional Revenue Forecasts for Big Data in IoT 2015 - 2020	100	
6.5.1	North American Market for Big Data in IoT 2015 - 2020	103	
6.5.2	EMEA Market for Big Data in IoT 2015 - 2020	106	
6.5.3	APAC Market for Big Data in IoT 2015 - 2020	110	
6.5.4	CALA Market for Big Data in IoT 2015 - 2020	114	
7	Key Companies	120	
7.1	AGT Group GMBH	120	
7.2	Glassbeam Inc.	121	
7.3	MongoDb Inc.	122	
7.4	netmagic Solutions	124	
7.5	Oracle	125	
7.6	Parstream Inc.	126	
7.7	Splunk Inc.	128	

Figures

Figure 1:	Framework for Big Data in IoT	18	
Figure 2:	Operational and New revenue Benefits of Big Data in IoT	36	
Figure 3:	Global IoT Markets 2015 - 2020	55	
Figure 4:	Global markets for Big Data in IoT	57	
Figure 5:	Revenue for Big Data Products and Services offered for IoT 2015 - 2020	61	
Figure 6:	Markets for Big Data Collection Infrastructure in IoT	64	
Figure 7:	Regional Markets for Big Data Collection Infrastructure in IoT 2015 - 2020	65	
Figure 8:	Markets for Big Data Storage Infrastructure in IoT	67	
Figure 9:	Regional Markets for Big Data Storage Infrastructure in IoT 2015 - 2020	68	
Figure 10:	Markets for Big Data Analytics and Applications Infrastructure in IoT	70	
Figure 11:	Regional Markets for Big Data Analytics & App Infrastructure in IoT 2015 - 2020	71	
Figure 12:	Markets for Big Data as a Service in IoT	74	
Figure 13:	Regional Markets for Big Data as a Service in IoT 2015 - 2020	75	
Figure 14:	Big Data in IoT by Industry Segment 2015 - 2020	78	

Figure 15: Big Data in IoT for HVAC 2015 - 2020	81
Figure 16: Regional markets for Big Data in IoT for HVAC 2015 - 2020	82
Figure 17: Big Data in IoT for Consumer Electronics 2015 - 2020	85
Figure 18: Regional Markets for Big Data in IoT for Consumer Electronics 2015 - 2020	86
Figure 19: Big Data in IoT for Healthcare 2015 - 2020	88
Figure 20: Regional markets for Big Data in IoT for Consumer Electronics 2015 - 2020	89
Figure 21: Big Data in IoT for Manufacturing 2015 - 2020	91
Figure 22: Regional markets for Big Data in IoT for Manufacturing 2015 - 2020	92
Figure 23: Big Data in IoT for Oil and Gas 2015 - 2020	93
Figure 24: Regional markets for Big Data in IoT for Oil and Gas 2015 - 2020	94
Figure 25: Big Data in IoT for Transport and Cargo 2015 - 2020	96
Figure 26: Regional Markets for Big Data in IoT for Oil and Gas 2015 - 2020	97
Figure 27: Big Data in IoT for Utility 2015 - 2020	99
Figure 28: Regional markets for Big Data in IoT for Utility 2015 - 2020	100
Figure 29: Regional Markets for Big Data in IoT 2015 - 2020	101
Figure 30: North American Market for Big Data in IoT 2015 - 2020	103
Figure 31: North America Market for Big Data in IoT Products/Services 2015 - 2020	104
Figure 32: North American Market for Big Data in IoT by Industry Segment 2015 - 2020	106
Figure 33: EMEA market for Big Data in IoT	107
Figure 34: EMEA Market for Big Data in IoT Products and Services 2015 - 2020	108
Figure 35: EMEA Market for Big Data in IoT by Industry Segment 2015 - 2020	109
Figure 36: APAC Market for Big Data in IoT	110
Figure 37: APAC Market for Big Data in IoT Products and Services 2015 - 2020	112
Figure 38: APAC Market for Big Data in IoT by Industry Segment 2015 - 2020	113
Figure 39: APAC Market for Big Data in IoT	115
Figure 40: CALA Market for Products and Services offered by Big Data in IoT 2015 - 2020	117
Figure 41: CALA Market for Big Data in IoT by Industry Segment 2015 - 2020	119

Tables

Table 1: Global IoT Markets 2015 - 2020	55
Table 2: Global markets for Big Data in IoT	57
Table 3: Revenue for Big Data products and Services offered for IoT 2015 - 2020	60
Table 4: Markets for Big Data Collection Infrastructure in IoT 2015 - 2020	63
Table 5: Regional Markets for Big Data Collection Infrastructure in IoT 2015 - 2020	64
Table 6: Markets for Big Data Storage Infrastructure in IoT	66
Table 7: Regional Markets for Big Data Storage Infrastructure in IoT 2015 - 2020	67
Table 8: Markets for Big Data Analytics and Applications Infrastructure in IoT	69
Table 9: Regional Markets for Big Data Analytics and App Infrastructure in IoT 2015 - 2020	70
Table 10: Markets for Big Data as a Service in IoT	73
Table 11: Regional Markets for Big Data as a Service in IoT 2015 - 2020	74
Table 12: Big Data in IoT by Industry 2015 - 2020	77
Table 13: Markets for Big Data in IoT for HVAC	80

Table 14: Regional markets for Big Data in IoT for HVAC 2015 - 2020	82	
Table 15: Markets for Big Data in IoT for Consumer Electronics	84	
Table 16: Regional Markets for Big Data in IoT for Consumer Electronics 2015 - 2020		86
Table 17: Big Data in IoT for Healthcare 2015 - 2020	88	
Table 18: Regional markets for Big Data in IoT for Healthcare 2015 - 2020		89
Table 19: Regional markets for Big Data in IoT for Manufacturing 2015 - 2020	91	
Table 20: Regional markets for Big Data in IoT for Oil and Gas 2015 - 2020		94
Table 21: Regional Markets for Big Data in IoT for Transport and Cargo 2015 - 2020		97
Table 22: Regional markets for Big Data in IoT for Utility 2015 - 2020	99	
Table 23: Regional Markets for Big Data in IoT 2015 - 2020	101	
Table 24: North American Market for Big Data in IoT	103	
Table 25: North American Market for Big Data in IoT Products/Services 2015 - 2020		104
Table 26: North American Market for Big Data in IoT by Industry Segment 2015 - 2020		105
Table 27: EMEA market for Big Data in IoT	106	
Table 28: EMEA Market for Big Data in IoT Products and Services 2015 - 2020		107
Table 29: EMEA Market for Big Data in IoT by Industry Segment 2015 - 2020		109
Table 30: APAC Market for Big Data in IoT	110	
Table 31: APAC Market for Big Data in IoT Products and Services 2015 - 2020		111
Table 32: APAC Market for Big Data in IoT by Industry Segment 2015 - 2020		113
Table 33: CALA Market for Big Data in IoT	114	
Table 34: CALA Market for Products /Services offered by Big Data in IoT 2015 - 2020		116
Table 35: CALA Market for Big Data in IoT by Industry Segment 2015 - 2020		118
Table 36: AGT Group	121	
Table 37: Glassbeam Inc.	122	
Table 38: MongoDB Inc.	124	
Table 39: Netmagic Solutions	125	
Table 40: Oracle Corporation	126	
Table 41: ParStream Inc.	127	
Table 42: Splunk Inc.	129	