

IoT Database Infrastructure and DB Services 2017 - 2022

https://marketpublishers.com/r/IEB20219811EN.html

Date: January 2017

Pages: 268

Price: US\$ 1,995.00 (Single User License)

ID: IEB20219811EN

Abstracts

There is a long history of database infrastructure and services in the telecom and computing industries. Examples of database services include number portability, toll-free calling, calling name, ENUM, and many others. There is an emerging opportunity for Internet of Things (IoT) database infrastructure services to support inter-working and access to IoT related resources, most notably data associated with IoT events gathered from IoT Devices and sensors.

More specifically, there is an emerging need for a plethora of IoT DB Services including Identity Management, Device Management, Authentication, Authorization, and Accounting (AAA). Many of these database services will require an IoT Data Registry as well as IoT DB Transaction Services, which will be used by IoT network providers, enterprise, and governmental organizations. Each of these entities will need to rely upon many IoT APIs and a variety of signaling, communications, and database access technologies. While initial services will be provided in a silo-like fashion, ultimately IoT DB Services will be provided within a more uniform framework and on a cross-customer basis.

This research evaluates IoT Database Infrastructure and DB services technologies, strategies, and market opportunities. The report assesses market needs and solutions, providing a view of the future requirements for IoT Networks and Systems. This report also analyzes the telecom and computing database services industry as a whole, examining existing technologies, industry practices and procedures, and identifying what is anticipated to apply to IoT and what will not apply. The report includes detailed forecasts for IoT Database Infrastructure and DB Services from 2017 to 2022.

Report Benefits:



IoT DB Infrastructure and Services forecasts 2017 – 2022

Recognize the market opportunities for IoT DB infrastructure and services

Identify IoT DB services necessary to support scalability, security, and monetization

Understand current and future IoT network interoperability, messaging and DB services

Identify functionality required to support inter-network, cross company and industry IoT data exchange

Understand how certain existing telecom and computing technologies and DB infrastructure will apply to IoT

Select Findings:

Leading segment will be software and apps through 2022

Initial IoT DB services will be a silo model and fragmented in nature

Longer term, IoT DB services will be offered in "as a service" model

There is a growing need for IoT Orchestration and Mediation services

The IoT industry will leverage lessons learned from current DB services

Datacenter operators will benefit from massive growth in IoT infrastructure

Managed communications providers will benefit from value-added IoT data services

Target Audience:

IoT companies



Network operators

Datacenter companies

Data services companies

Integration services companies

Managed communication service providers

Telecom and computing infrastructure providers



Contents

1 EXECUTIVE SUMMARY

2 IOT DATABASE INFRASTRUCTURE AND DB SERVICES

- 2.1 IoT Database Infrastructure
 - 2.1.1 IoT Identity Management Database
 - 2.1.2 IoT Permissions Database
 - 2.1.3 IoT Discovery Database
- 2.2 DB Support of IoT Orchestration and Mediation
- 2.3 DB Support of IoT AAA Services
 - 2.3.1 IoT Authentication
 - 2.3.1.1 Methods and Procedures
 - 2.3.1.2 Establishing and Maintaining Trust
 - 2.3.2 IoT Authorization
 - 2.3.3 IoT Accounting
- 2.4 IoT DB Support of IoT Identity Management
 - 2.4.1 Identify Network Elements
 - 2.4.2 Identify Consumer, Enterprise, and Industrial Devices
 - 2.4.3 Identify Actors: Consumer, Producer, Service Provider
 - 2.4.4 Identify Data, Data Users, and Data Uses
 - 2.4.5 IoT Identity Management and AAA as a Service
- 2.5 IoT DB Support of IoT Data Management and Analytics
 - 2.5.1 IoT Data Management Requirements
 - 2.5.2 IoT Data Market
 - 2.5.3 IoT Data as a Service
 - 2.5.4 IoT Analytics as a Service
 - 2.5.5 IoT Decisions as a Service
- 2.6 IoT DB Registry and Transaction Services
 - 2.6.1 Identity Registry and IDoT as a Service
 - 2.6.2 IoT Authentication DB Services
 - 2.6.3 IoT Authorization DB Services
 - 2.6.4 IoT Accounting DB Services
 - 2.6.5 IoT Data and Analytics DB Services
 - 2.6.6 IoT Device Registry and DB Services
 - 2.6.7 IoT Device Registry and IoT Identity Registry Relationship
 - 2.6.8 IoT DB Services in Support of IoT Platforms
 - 2.6.9 Monitoring Activity and Reporting Performance against SLA



2.6.10 IoT Infrastructure Ecosystem as a Whole

3 IOT DATABASE INFRASTRUCTURE AND SERVICE FORECAST 2017 - 2022

- 3.1 Global Market Forecast 2017 2022
 - 3.1.1 Market by Segment and Sub-Segment
 - 3.1.1.1 Software and Application
 - 3.1.1.2 Services
 - 3.1.1.3 Infrastructure Device and Equipment
 - 3.1.2 Market by Database Type
 - 3.1.3 Market by Deployment Management & Cloud Types
 - 3.1.4 Market by Business Model
 - 3.1.5 Market by IoT Market Category
 - 3.1.6 Market by Industry Vertical
- 3.2 Regional Market Forecast 2017 2022
 - 3.2.1 APAC Market Forecast 2017 2022
 - 3.2.1.1 Segment and Sub-Segment
 - 3.2.1.2 Types of Database
 - 3.2.1.3 Types of Deployment Management
 - 3.2.1.4 Business Model
 - 3.2.1.5 Application Category
 - 3.2.1.6 Industry Vertical
 - 3.2.1.7 Market by Country
 - 3.2.2 Europe Market Forecast 2017 2022
 - 3.2.2.1 Segment and Sub-Segment
 - 3.2.2.2 Types of Database
 - 3.2.2.3 Deployment Management
 - 3.2.2.4 Business Model
 - 3.2.2.5 IoT Application Category
 - 3.2.2.6 Industry Vertical
 - 3.2.2.7 Market by Country
 - 3.2.3 North America Market Forecast 2017 2022
 - 3.2.3.1 Segment and Sub-Segment
 - 3.2.3.2 Types of Database
 - 3.2.3.3 Deployment Management
 - 3.2.3.4 Business Model
 - 3.2.3.5 IoT Application Category
 - 3.2.3.6 Industry Verticals
 - 3.2.3.7 Market by Country



- 3.2.4 Latin America Market Forecast 2017 2022
 - 3.2.4.1 Segment and Sub-Segment
 - 3.2.4.2 Types of Database
 - 3.2.4.3 Deployment Management
 - 3.2.4.4 Business Model
 - 3.2.4.5 IoT Application Category
 - 3.2.4.6 Industry Vertical
- 3.2.4.7 Market by Country
- 3.2.5 Middle East & Africa Market Forecast 2017 2022
 - 3.2.5.1 Segment & Sub-Segment
 - 3.2.5.2 Types of Databases
 - 3.2.5.3 Deployment Management
 - 3.2.5.4 Business Model
 - 3.2.5.5 IoT Application Category
 - 3.2.5.6 Industry Verticals
 - 3.2.5.7 Market by Country

4 CONCLUSIONS AND RECOMMENDATIONS

5 APPENDIX

- 5.1 Telecom and Computing Data
 - 5.1.1 Data Types
 - 5.1.1.1 Evolution of Data and Databases
 - 5.1.1.2 Structured, Unstructured, and Hybrid Data
 - 5.1.1.3 Transactional vs. Non-Transactional Data
 - 5.1.2 Data Sources
 - 5.1.3 Data Management Challenges
 - 5.1.3.1 Data Fragmentation
 - 5.1.3.2 Data Governance and Master Data Management
- 5.2 Data Services in Telecom and Computing
 - 5.2.1 Database Role in Support of Apps and Services
 - 5.2.2 Data as a Service (DaaS)
 - 5.2.2.1 Carriers to Leverage Structured and Unstructured Data
 - 5.2.2.2 Carriers Access to Continuous Data Feeds
 - 5.2.2.3 Carriers to Capture from Social Systems and Merge with Own Data
- 5.3 Database Technologies
 - 5.3.1 Database Access and Signalling
 - 5.3.1.1 Lightweight Directory Access Protocol (LDAP)



- 5.3.1.2 Session Initiation Protocol (SIP)
- 5.3.1.3 Signaling System Seven (SS7)
- 5.4 Telecom and Computing Databases
 - 5.4.1 Prepaid Communications, Content, and Commerce
 - 5.4.2 Toll Free Calling Database
 - 5.4.3 Calling Name Database
 - 5.4.4 Line Information Database (LIDB)
 - 5.4.5 Network Operator Subscriber Data Management (SDM) Databases
 - 5.4.6 Presence Management and Databases
 - 5.4.7 Location Management Infrastructure and Databases
 - 5.4.7.1 Location vs. Presence
 - 5.4.7.2 Location Management
 - 5.4.8 Number Portability and Number Pooling Systems and Databases
 - 5.4.9 Inter-carrier Messaging (MMS and SMS) Databases
 - 5.4.9.1 Short Messaging Service (SMS)
 - 5.4.9.2 Multimedia Messaging Service (MMS)
 - 5.4.10 Electronic Number (ENUM)
 - 5.4.11 Service Delivery Platforms (SDP)
 - 5.4.12 IMS Architecture, Framework, and Databases
 - 5.4.12.1 IMS Planes
 - 5.4.12.2 IMS Network Elements
 - 5.4.12.3 IMS Designed to Support NGN Services
 - 5.4.13 Other Databases
 - 5.4.13.1 RFID Databases
 - 5.4.13.2 Calling Party Pays Database
 - 5.4.13.3 Do Not Call Database
 - 5.4.13.4 Robo Call Databases



List Of Figures

LIST OF FIGURES

Figure 2: IoT Identity Database

Figure 3: IoT Permissions Database

Figure 4: IoT Identity and Permissions Database Interactions

Figure 5: IoT Discovery Database

Figure 6: IoT Mediation

Figure 7: IoT Device Discovery Dashboard

Figure 8: IoT Device Discovery and Control via Smartphone

Figure 9: IoT Device Discovery and Control via Wearable Technology

Figure 10: IDoT Deployment Types

Figure 11: IoT Data Management

Figure 12: Managing IoT Data vs. Other Unstructured Data

Figure 13: IoT Data Management and Analytics Flow

Figure 14: IoT Data as a Service

Figure 15: Al Support of IoT Authorization and Monitoring

Figure 16: IoT Identity Registry

Figure 17: IoT Owners and Networks Register

Figure 18: IoT Identity Registry and Transaction Services

Figure 19: Identity Registry vs. Device Registry

Figure 20: IoT Virtual Identity Database

Figure 21: IoT Authentication Services

Figure 22: IoT Authorization Services

Figure 23: IoT Data and Analytics DB Services

Figure 24: IoT ID and Device Registry Relationship

Figure 25: IoT DB Services in Support of IoT Platforms

Figure 26: Performance Monitoring and SLA Reporting

Figure 27: IoT Orchestration and Mediation Ecosystem

Figure 28: Global IoT Database Infrastructure & Service Market 2017 - 2022

Figure 29: Big Data Value Chain

Figure 30: Data Fragmentation

Figure 31: DaaS for Network Operators

Figure 32: Merging Social, Network, and Behavior Data

Figure 33: Merging Network Operator, Enterprise, and Other Data

Figure 34: Query/Response System

Figure 35: Roaming in Cellular Networks



Figure 36: Location-based Billing

Figure 37: WIN based Prepay Call Flow

Figure 38: Universal Prepay

Figure 39: Toll Free Calling

Figure 33: Calling Name in Wireless Networks

Figure 41: Calling Name Presentation with WIN Call Flow

Figure 42: WIN Call Flow with Query to Calling Party DB

Figure 43: SDM Ecosystem

Figure 37: Unified Presence Server

Figure 45: Presence with LTE

Figure 46: Passive vs. Active and Autonomous vs. Non-Autonomous Presence

Figure 47: Next Generation App Leveraging Presence

Figure 48: Next Generation App Integration with Presence Server

Figure 49: Hierarchical and Recursive Presence and Location

Figure 50: Control Plane Location

Figure 51: Control Plane support of Enhanced 9-1-1 Calling

Figure 52: Control Plane in GSM Networks

Figure 53: Combined ANSI and GSM Control Planes

Figure 54: User Plane Location

Figure 48: Number Portability Administration

Figure 56: Number Portability Call Routing

Figure 57: Inter-Carrier SMS Messaging

Figure 58: MMS Functional Elements

Figure 59: Traditional Network Topology

Figure 60: Network Topology with IMS

Figure 61: IMS Planes

Figure 62: IMS Services Plane

Figure 63: IMS Control Plane

Figure 64: IMS Transport Plane

Figure 65: Enhanced Phone Book

Figure 66: Presence and Location support of Enhanced Phonebook

Figure 67: Social Media Integration with Enhanced Phonebook

Figure 68: Services Blending

Figure 69: WebRTC Framework



List Of Tables

LIST OF TABLES

Table 1: Global IoT Database Infrastructure & Service Market by Segment 2017 - 2022

Table 2: Global IoT Database Infrastructure & Service Market by Software & Application 2017 - 2022

Table 3: Global IoT Database Infrastructure & Service Market by Types of Services

2017 - 2022

Table 4: Global IoT Database Infrastructure & Service Market by Infrastructure Device & Equipment 2017 - 2022

Table 5: Global IoT Database Infrastructure & Service Market by Database Types 2017 - 2022

Table 6: Global IoT Database Infrastructure & Service Market by Deployment Management 2017 - 2022

Table 7: Global Cloud Hosted & Managed IoT Database Infrastructure & Service Market by Cloud Types 2017 - 2022

Table 8: Global IoT Database Infrastructure & Service Market by Business Model 2017 - 2022

Table 9: Global IoT Database Infrastructure & Service Market by Application Category 2017 - 2022

Table 10: Global IoT Database Infrastructure & Service Market by Industry Vertical 2017 - 2022

Table 11: IoT Database Infrastructure & Service Market by Region 2017 - 2022

Table 12: APAC IoT Database Infrastructure & Service Market by Segment 2017 - 2022

Table 13: APAC IoT Database Infrastructure & Service Market by Software & Application 2017 - 2022

Table 14: APAC IoT Database Infrastructure & Service Market by Types of Services 2017 - 2022

Table 15: APAC IoT Database Infrastructure & Service Market by Infrastructure Device & Equipment 2017 - 2022

Table 16: APAC IoT Database Infrastructure & Service Market by Database Types 2017 - 2022

Table 17: APAC IoT Database Infrastructure & Service Market by Deployment Management 2017 - 2022

Table 18: APAC Cloud Hosted & Managed IoT Database Infrastructure & Service Market by Cloud Types 2017 - 2022

Table 19: APAC IoT Database Infrastructure & Service Market by Business Model 2017 - 2022



- Table 20: APAC IoT Database Infrastructure & Service Market by Application Category 2017 2022
- Table 21: APAC IoT Database Infrastructure & Service Market by Industry Vertical 2017 2022
- Table 22: APAC IoT Database Infrastructure & Service Market by Country 2017 2022
- Table 23: Europe IoT Database Infrastructure & Service Market by Segment 2017 2022
- Table 24: Europe IoT Database Infrastructure & Service Market by Software & Application 2017 2022
- Table 25: Europe IoT Database Infrastructure & Service Market by Types of Services 2017 2022
- Table 26: Europe IoT Database Infrastructure & Service Market by Infrastructure Device & Equipment 2017 2022
- Table 27: Europe IoT Database Infrastructure & Service Market by Database Types 2017 2022
- Table 28: Europe IoT Database Infrastructure & Service Market by Deployment Management 2017 2022
- Table 29: Europe Cloud Hosted & Managed IoT Database Infrastructure & Service Market by Cloud Types 2017 2022
- Table 30: Europe IoT Database Infrastructure & Service Market by Business Model 2017 2022
- Table 31: Europe IoT Database Infrastructure & Service Market by Application Category 2017 2022
- Table 32: Europe IoT Database Infrastructure & Service Market by Industry Vertical 2017 2022
- Table 33: Europe IoT Database Infrastructure & Service Market by Country 2017 2022
- Table 34: North America IoT Database Infrastructure & Service Market by Segment 2017 2022
- Table 35: North America IoT Database Infrastructure & Service Market by Software & Application 2017 2022
- Table 36: North America IoT Database Infrastructure & Service Market by Types of Services 2017 2022
- Table 37: North America IoT Database Infrastructure & Service Market by Infrastructure Device & Equipment 2017 2022
- Table 38: North America IoT Database Infrastructure & Service Market by Database Types 2017 2022
- Table 39: North America IoT Database Infrastructure & Service Market by Deployment Management 2017 2022
- Table 40: North America Cloud Hosted & Managed IoT Database Infrastructure &



Service Market by Cloud Types 2017 - 2022

Table 41: North America IoT Database Infrastructure & Service Market by Business Model 2017 - 2022

Table 42: North America IoT Database Infrastructure & Service Market by Application Category 2017 - 2022

Table 43: North America IoT Database Infrastructure & Service Market by Industry Vertical 2017 - 2022

Table 44: North America IoT Database Infrastructure & Service Market by Country 2017 - 2022

Table 45: Latin America IoT Database Infrastructure & Service Market by Segment 2017 - 2022

Table 46: Latin America IoT Database Infrastructure & Service Market by Software & Application 2017 - 2022

Table 47: Latin America IoT Database Infrastructure & Service Market by Types of Services 2017 - 2022

Table 48: Latin America IoT Database Infrastructure & Service Market by Infrastructure Device & Equipment 2017 - 2022

Table 49: Latin America IoT Database Infrastructure & Service Market by Database Types 2017 - 2022

Table 50: Latin America IoT Database Infrastructure & Service Market by Deployment Management 2017 - 2022

Table 51: Latin America Cloud Hosted & Managed IoT Database Infrastructure & Service Market by Cloud Types 2017 - 2022

Table 52: Latin America IoT Database Infrastructure & Service Market by Business Model 2017 - 2022

Table 53: Latin America IoT Database Infrastructure & Service Market by Application Category 2017 - 2022

Table 54: Latin America IoT Database Infrastructure & Service Market by Industry Vertical 2017 - 2022

Table 55: Latin America IoT Database Infrastructure & Service Market by Country 2017 - 2022

Table 56: MEA IoT Database Infrastructure & Service Market by Segment 2017 - 2022 Table 57: MEA IoT Database Infrastructure & Service Market by Software & Application

Table 58: MEA IoT Database Infrastructure & Service Market by Types of Services 2017 - 2022

Table 59: MEA IoT Database Infrastructure & Service Market by Infrastructure Device & Equipment 2017 - 2022

Table 60: MEA IoT Database Infrastructure & Service Market by Database Types 2017 -

2017 - 2022



2022

Table 61: MEA IoT Database Infrastructure & Service Market by Deployment

Management 2017 - 2022

Table 62: MEA Cloud Hosted & Managed IoT Database Infrastructure & Service Market

by Cloud Types 2017 - 2022

Table 63: MEA IoT Database Infrastructure & Service Market by Business Model 2017 -

2022

Table 64: MEA IoT Database Infrastructure & Service Market by Application Category

2017 - 2022

Table 65: MEA IoT Database Infrastructure & Service Market by Industry Vertical 2017 -

2022

Table 66: MEA IoT Database Infrastructure & Service Market by Country 2017 - 2022

Table 67: Signaling System Seven (SS7) vs. Internet Protocol (IP)

Table 68: Traditional PSTN vs. Internet Capabilities Comparison



I would like to order

Product name: IoT Database Infrastructure and DB Services 2017 - 2022

Product link: https://marketpublishers.com/r/IEB20219811EN.html

Price: US\$ 1,995.00 (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/IEB20219811EN.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