It pays to utilise IoT data analytics technology

As IoT technologies attempt to live up to their promises to solve real world problems and deliver consistent value for companies, there is still confusion among businesses on how to collect, store, and analyse a massive amount of IoT data generated from internet-connected devices from industry and consumers, writes **Luisa Milic**.

Many businesses that are looking to collect and analyse IoT data are still unacquainted with the benefits and capabilities the IoT analytics technology offers, or struggle with how to analyse the data to continuously benefit their business in ways such as cost reduction, improving products and services, safety and efficiency, and enhancing customer experience. Consequently, businesses still have a prospect to create a competitive advantage and differentiate by mastering complex IoT technology and fully understanding the potential of IoT data analytics capabilities.

Key features and factors to consider

To help businesses understand the real potential and value of IoT data and analytics across various IoT analytics applications, Camrosh and Ideya published a joint report entitled IoT Data Analytics Report 2016. The report examines the IoT data analytics landscape and discusses in detail key product features and factors to consider when selecting an IoT analytics tool. These include:

1. Data sources (data types and formats analysed by IoT data analytics)
2. Data preparation process (data quality, data profiling, Master Data Management (MDM), data virtualisation and protocols for data collection)
3. Data processing and storage (key technologies, data warehousing/ vertical scale, horizontal data storage and scale, data streaming processing, data latency, cloud computing and query platforms)
4. Data analysis (technology and methods, intelligence deployment, types of analytics including descriptive, diagnostic, predictive, prescriptive, geospatial analytics and others)
5. Data presentation (dashboard, data virtualisations, reporting, and data alerts)
6. Administration management, engagement/action feature, security and reliability
7. Integration and development tools and customisations

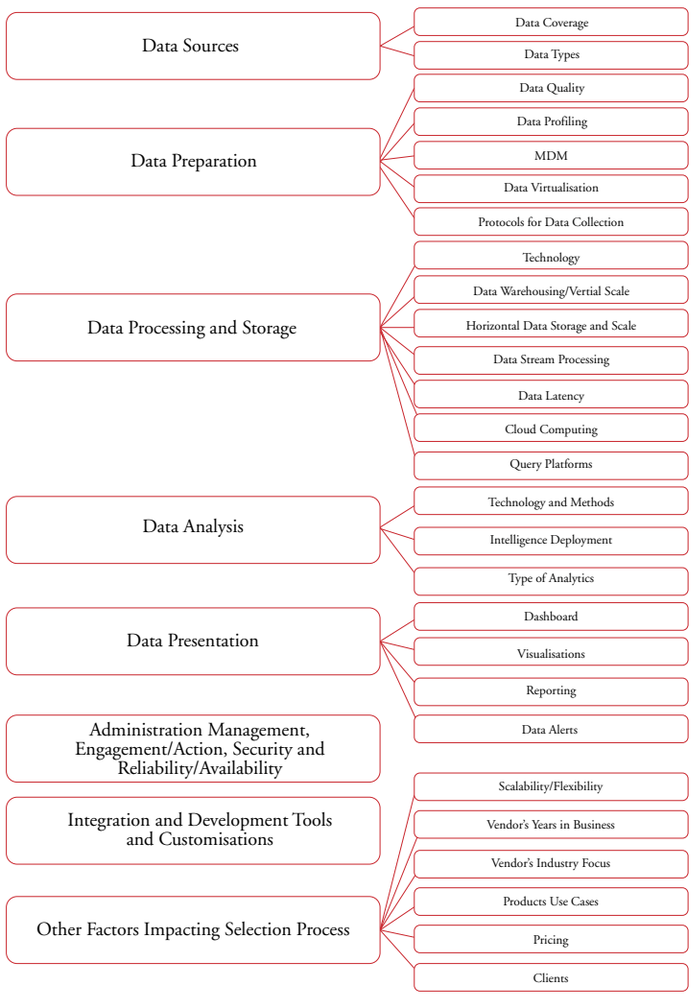
In addition, the report explains and discusses other key factors impacting the selection process such as scalability and flexibility of data analytics tools, vendors' years in business, vendors' industry focus, product use cases, pricing and key clients. It also provides a directory and comparison of 47 leading IoT data analytics products.

Important business focus

In order to create real business value from the IoT by leveraging data analytics, it is essential for companies to set up their business objectives across the organisation and identify and prioritise specific IoT use cases that support each of the organisational functions. Companies need to ask specific questions that need to be addressed (such as "How can we reduce cost?", "How can we predict potential problems in operations before they happen?", "Where and when are those problems most likely to occur?", etc.) and identify which data and which type of analysis are needed to address these key questions.

For this reason, the report examines use cases of IoT data analytics across a range of business functions such as marketing, sales, customer services, operations/production and product development, as well as illustrating use cases across industry verticals including agriculture, energy, utilities, environment and public safety, healthcare/medical and lifestyle, wearables, insurance, manufacturing, military/defence and cyber security, oil and gas, retail, public sector (e.g., smart cities), smart homes/smart buildings, supply chain, telecommunication and transportation. To help companies get

The key features and factors impacting the selection process



the most from their IoT deployments and select IoT data analytics based on industry specialisation, the report addresses use cases for each of the aforementioned industry sectors, and the benefits, of IoT data analytics tools.

Selecting the right IoT Analytics tool to fit the specific requirements and use cases of a business is a crucial strategic decision, because once adopted, IoT analytics impacts not only business processes and operations, but also the whole supply chain and people involved. It changes the way information is used, and the overall impact it has on the organisation. Furthermore, it is evident that companies that invest in IoT with a long-term view and business focus are well positioned to succeed in this fast evolving area.

Building the right partnerships

IoT data analytics vendors have created a broad range of partnerships and built an ecosystem to help businesses design and implement end-to-end IoT solutions. Through the detailed analysis and mapping of the partnerships formed by IoT analytics vendors, the IoT data analytics report shows that nearly all featured IoT analytics vendors reviewed are interconnected to one or more of the sample set, as well as a list of partners from different industries.

The report reveals that the partnerships play a key role in the ecosystem and enable vendors to address specific technology requirements, access market channels, and other aspects of providing services through partnering with enablers in the ecosystem. With the emergence of new use cases and their increasing sophistication, industry domain knowledge will increase in importance.

Other factors, such as compatibility with legacy systems, capacity for responsive storage and computation power, as well as multiple analytics techniques and advanced analytics functions are increasingly becoming the norm. Having a good map to find one's way through the dynamic and fast moving IoT analytics vendors ecosystem is a good starting point to make better decisions when it comes to joining the IoT revolution and reaping its benefits. PACE

Luisa Milic, M.Sc. is the Founder and Director of Ideya Business and Marketing Consultancy (http://ideya.eu.com), and specialises in providing market research and analysis, business planning and strategic planning. She has 22 years of international experience, working 11 years at KPMG LLP Market. Research in the USA and leading the Ideya consultancy in Europe for the past 11 years.