



THE BIG DEAL WITH **BIG** **DATA**



WHAT IF YOU COULD MAP OUT THE PAST...

Virtual interactions have revolutionised the speed and manner in which humans interact. The expansion of the Internet has radically changed the way in which we conduct our everyday activities.

It is not surprising that there are currently more devices communicating with each other via the Internet than people. This never ending web of data transmission between machines, sensors, devices and humans has come to be known as the Internet of Things (IoT).

Big Data analytics holds the unbounded potential for providing you with a more complete understanding of your business and its environment.

BIG DATA IS CHANGING THE WAY WE LIVE, WORK AND THINK.

Big Data is the collective term for the vast amount of unstructured data generated from virtual interactions taking place between humans, machines and sensors every moment of every day. These endless streams of data differ in form, function and behaviour.

In an increasingly connected and competitive world, Big Data can positively impact those who have the toolset to turn data into valuable information.



...TO BETTER UNDERSTAND THE PRESENT...

Data streaming in from billions of sources can provide predictive insights into customers, business risks and operational efficiencies. The intelligent use of information can inform solutions, drive paradigm-changing innovations and enable competitive advantage.

"The best time to plant a tree was twenty years ago.
The second best time is now."

- Chinese Proverb

UNDERSTAND THE BIGGER PICTURE. START BY SAVING YOUR DATA TODAY!

In the realm of Big Data analytics, data accumulated and stored over long periods of time yield more comprehensive and accurate business insights.

Silos created from stored data can be analysed in various combinations, unveiling new business insights based on reliable probabilities and predictions.

Therefore, the more data that is captured and accumulated over time, the larger and more detailed the picture becomes.

Unlock the value of long-term analysis and gain new perspective on your business environment - start saving your data today.



& MORE ACCURATELY PREDICT THE FUTURE?

In order to realise the potential of long-term data analysis, the implementation of a scalable, resilient and elastic Big Data management tool is essential.

A platform that has the ability to capture, store and analyse vast amounts of semi-structured and unstructured data either in real-time and/or through historical analysis, enabling one to unlock the value of Big Data.

IMAGINE BEING ABLE TO...

- Collect accurate and detailed information on anything from product inventories to sick days, thereby exposing variabilities and boost overall performance.
- Create value and drive innovation by predicting business trends.
- Conduct controlled experiments to make better management decisions.
- Enable data transparency through sophisticated analytics to gain a holistic view of different data silos.
- Gain competitive advantage through in-depth knowledge of your customers and competitors.
- Offer more tailored products and services through a narrower segmentation of your customers.
- Make lucrative investment decisions based on historical and current business information.
- Prevent business loss or damage by foreseeing obstacles and overcoming them as they arise.
- Reduce capital and operational expenditure through preventative maintenance.
- Improve the development of the next generation of products and services through better trend forecasting and streamlining processes.
- Use data for low frequency forecasting to high-frequency now-casting to ensure timely adjustments on business levers.



The escalating demand for business insights requires a revised approach to architecture, tools and practices to enable capturing data generated from a variety of new sources.

THE CHALLENGES FACED

Businesses currently face the challenge of capturing information generated from a variety of new data sources with vastly different behaviour patterns from one another.

Due to the variable, unstructured and voluminous nature of Big Data, traditional methods used for data capture are unable to manage data streams generated on such a massive scale.

This means that the latest data currently available to businesses are not captured or stored for long-term analysis, and opportunities for gaining insights are missed.

THE NATURE OF BIG DATA

Due to the enormous size of Big Data-sets - a few thousand terabytes many petabytes - a vast and elastic storage space capable of storing this data is essential.

The complexity, rate of growth and variety of Big Data-sets make them difficult to capture, manage, process or analyse by conventional tools without drastically affecting the processing speed.

Big Data analytics requires a set of technologies and techniques that are able to reveal insights from datasets that are diverse, complex and of a massive scale.

To unlock valuable insights, Big Data needs to be captured continuously and undergo close analysis in order to reveal the valuable business information it holds.

THE IDEAL BIG DATA PLATFORM

The ideal Big Data platform is able to capture and clean large amounts of unstructured data from various sources. It manages, processes and analyses this data without compromising on processing speed.

A suitable platform offers secure and resilient data storage with unlimited capacity. It is easily deployed and scaled to adjust as your Big Data needs change.

Data is always readily available for interrogation and is made visible through a well-designed user interface.

1 INGEST

A primary function of the zenAptix Big Data Platform is to ingest huge amounts of un-structured and semi-structured data in a fast and cost effective manner for real-time data analytics and in order to store it for later use.

The zenAptix Ingestion Layer can ingest a variety of data streams, with different data-types, at an extremely high volume.

Specific data changes can be monitored as the data is ingested. The system can then react to changes in real-time, for example through sending a notification or alert.

The Ingestion Layer is also the space in which real-time data analytics is done and presented as consolidated information in the Visualisation Layer from where value can be extracted.

2 STORE

The ability to persistently store and make available infinite amounts of data is central to any successful Big Data strategy.

The zenAptix Storage Layer stores and makes available semi- and un-structured data on a cosmic scale.

Its scalability is elastic in nature. This means that its storage capacity is easily and automatically scaled depending on and/or according to your data storage requirements.

The resilient nature of the Storage Layer ensures that it has the ability to recover immediately in case of disruptions, thereby providing seamless and continuous operation.



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3 EXTRACT

The zenAptix Extraction Layer is the space from which data scientists extract and query the vast quantities of data ad infinitum.

The technology underpinning the Extraction Layer enables data scientists to query historical data by means of models and algorithms that they have developed in order to, for example, establish trends in space and time.

4 PRESENT

The zenAptix Presentation Layer presents aggregated data from both the Ingestion and Extraction layers via different methods including heat maps, histograms, dials and graphs.

The Presentation Layer allows the end user to find value in the information presented and enables them to make more accurate predictions and informed decisions.

There is value in your Big Data, invest in it today!

EOH



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