



ERP ANALYTICS

In the world of Manufacturing, Retail and Distribution, the Enterprise Resource Planning (ERP) System helps to manage the supply chain and make business operations more efficient. It is also a treasure trove of data that can be transformed into actionable insights that can be used to gain an accurate view of business performance, to find opportunities to improve the top line and identify areas for cost savings, and more.

Today, the ability not just to have a view of current and historical information, but to take proactive measures based on predictive analytics, can be a huge competitive advantage. And yet, many companies still rely on manually-compiled, static reports that are days or even weeks old for decision support.

OUR APPROACH

Just Analytics helps companies to unlock their data's potential. Our years of experience, exposure to diverse solutions and over 150 projects implemented to date have allowed us to refine our approach to Business Intelligence (BI) and Analytics projects.

For ERP Analytics, we employ the following in our approach:

ELASTIC

We use a fully-managed Platform as a Service (PaaS) environment that allows you to pay for resources as-you-go and to scale resources easily.

RIGHT ARCHITECTURE

Massively Parallel Processing (MPP) + In-Memory Cache allows reduction of daily batch processing times from hours to minutes.

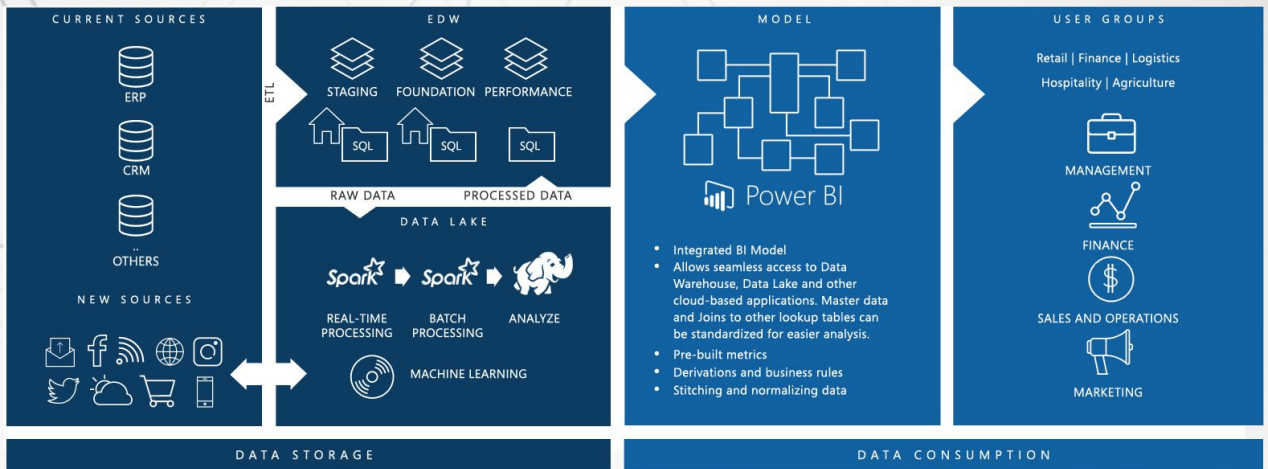
SCALABLE

Azure SQL Warehouse allows you to scale on demand, pause when not in use, and change compute at will. Meanwhile, Azure Analysis Services allows multiple instances or query replicas to significantly reduce response times when demand is high.

USER FRIENDLY

Multiple Analysis Services models by Subject Areas such as Secondary sales, Receivables allows your users to focus and discover insights in their area of expertise.

FUTURE-PROOF ARCHITECTURE



The main components of this architecture are:

Extract, Transform and Load (ETL)	We use Azure data factory for the data ingestion or ETL from your on-premise or cloud-based ERP and other operational systems. Data can be loaded incrementally ensuring that there is minimal impact to existing applications. Incrementally, data from the required tables is loaded every night into the cloud and processed so that it is available for analysis the next morning.
Data Warehouse Model	The Data Warehouse model has been designed to capture the detailed transactions from their ERP systems at the lowest level of granularity. This allows them to drill down into the details of the transaction without having to switch back to their ERP systems for those details.
All of the Data is Linked	If for example you are looking at the General Ledger and you see a journal from the order management module, you can drill down to the specific order and get all the details such as ordered quantities, promised date, shipment mode, etc. This is important from an analysis perspective. From a control perspective, it also allows auditors to review specific transactions without needing other people to extract this data.
Data Lake	Azure also allows us to provision a data lake to bring in non-ERP and unstructured data such as market information, social media feeds, etc. The data lake is also used to perform advanced analytics such as forecasting, next best offer, etc.
Azure Analysis Services Model	We want all users to be able to access the rich data present in the warehouse. But it can be quite daunting for non-technical people if we expose the low-level data model as they need to understand the model (tables, relationships etc.) and also understand technical concepts (joins, lookups, etc.). This limits the model for use only by technical people and defeats the purpose. The logical model or semantic layer exposes all the entities, their attributes and corresponding KPIs and metrics in business-friendly terms allowing the business analyst to do self-service data discovery.
Microsoft Power BI	All of this is exposed via Microsoft Power BI which is a set of tools for data visualization, and publishing and sharing them.

How is our Architecture Future-Proof?

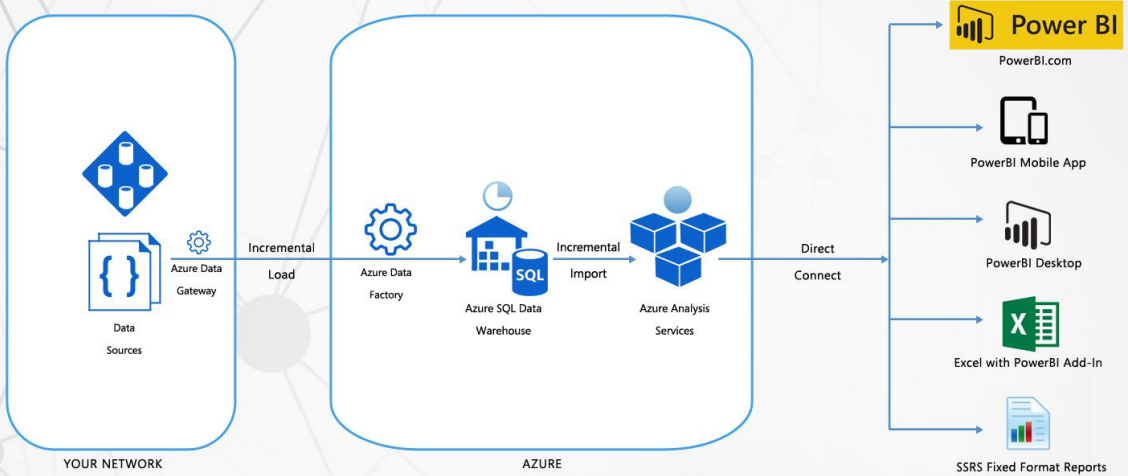
First, we can consume all data (structured / unstructured, ERP / non-ERP, on-premise / on-cloud) using the same architecture allowing the users to get a full 360-degree view of their core performance data in one place.

Second, we can scale based on your data and processing needs. You can start small and expand to petabytes of data without changing a single line of code or deployment architecture.

Finally, we support all types of analyses: whether historical, forward-looking, dashboards or ad hoc data discovery using the same set of tools across all of your data.

THE TECHNOLOGY

Our ERP Analytics solutions run on the Microsoft Azure Platform. Azure provides the ability to scale on demand, supports all types of data, and has the security measures to protect your data from unauthorized access.



COMPONENT	WHAT WE USE	DESCRIPTION
DATA WAREHOUSE	Azure SQL Data Warehouse	SQL DW is a massively parallel processing (MPP) distributed database system. It employs a “divide and conquer” strategy in huge data crunching scenarios, dividing data and processing capability across multiple nodes in order to achieve greater scalability.
DATA PROCESSING	Microsoft Azure Data Factory	Azure Data Factory is a cloud-based data integration service that orchestrates and operationalizes the processes needed to convert raw data into meaningful data. It is built for complex hybrid extract-transform-load (ETL), extract-load-transform (ELT), and data integration projects.
LOGICAL MODEL	Microsoft Azure Analysis Services	Azure Analysis Services provides enterprise-grade data modeling in the cloud. It is a fully managed platform as a service (PaaS), integrated with Azure data platform services. With Analysis Services, you can mashup and combine data from multiple sources, define metrics, and secure your data in a single, trusted semantic data model. The data model provides an easier and faster way for your users to browse massive amounts of data with client applications like Power BI, Excel, Reporting Services, third-party, and custom apps.
DATA VISUALIZATION	Microsoft Power BI	Power BI is a suite of business analytics tools that allows users to produce visually-appealing and intuitive dashboards, then publish them for your organization to consume either via a browser or their mobile devices. PowerBI makes self-service data exploration and analysis easy, and has built-in security to ensure data is protected.

OUR EXPERTISE

Just Analytics has a growing team of 50+ consultants focused on the Microsoft Data Platform with 20+ Certified in Data Management and Analytics.

We have developed ERP Analytics solutions for leading organizations in Southeast Asia such as:



ABOUT JUST ANALYTICS

Just Analytics is a specialized partner providing consulting and advisory services that allow our clients to meet current and future analytical goals and objectives. Based in Singapore, we strive to help companies build applications that transform data into insight giving them a greater understanding of their information assets.

One of our core value is to stay close to our consulting roots. Our track record of providing sound technology advice and building strategic solutions for our customers ensures that you will receive the technology expertise, operational effectiveness and customer centricity required to make your implementation a success. We believe BI and Analytics delivery should focus less on upfront definition and more on rapid, iterative evolution working together with end users. Our diverse team of certified consultants supports this model.

For more information, visit www.erpanalytics.ai or contact Just Analytics at contact@justanalytics.com.