

There are many variables in the formula for success in business. The most dynamic and important of these is customers. How well do you know your customers? This is a challenge for businesses everywhere. Customer 360 not only helps you know your customer better, but to predict their wants and needs.

One of the great advantages to the digital age is the wealth of data available to businesses about their customers. Hidden in that data is the answer to questions such as: "Who IS my customer?" and "What do they want or need?". **Customer 360 uses Machine Learning and data from virtually any source, and any format, to answer these questions** by building informed, intelligent profiles that give valuable insight into customers. Enriched profiles can then be used in a multitude of solutions and strategies to improve operations and profit margins.



The Need for Customer 360

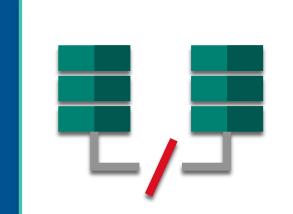


of marketers report having

challenges achieving a single customer view



Challenges in Leveraging Data for Customer Profiles



Unable to connect data sets



Expertise is unavailable



Tools are cost-prohibitive



of organizations are looking to

achieve a complete view of the customer



Implementing Customer 360



Challenges in Implementing Customer 360

Interpreting data and analyses...

...to find meaningful insight



Benefits

INCREASE Customer Retention





REDUCE Overall Costs

IMPROVE Sales/Revenue





BETTER Customer Experience

PREDICT Customer Behavior



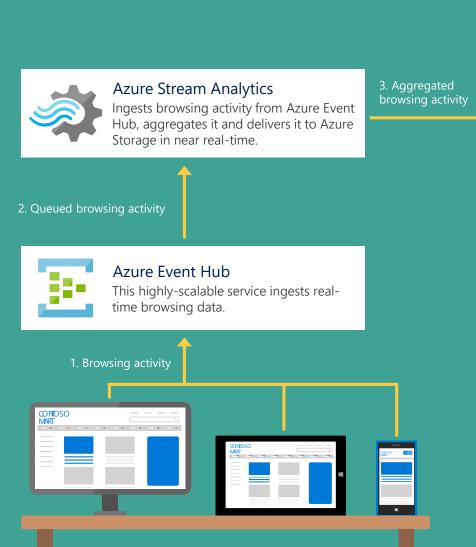


IDENTIFY Future Prospects

Inform Strategic Decision-making



End-to-end Data Flow





Azure Data Factory

Coordinates data transfer between HDInsight and Azure Storage for profile enrichment.



Azure Storage

Stores aggregated browsing activity, customer profiles merged with engineered features and enriched customer profiles with predicted purchases.

- 4. Browsing data is transferred
- 5. Engineered features are returned
- 6. Scoring is transferred to HDInsight
- 7. Predicted purchases are returned



HDInsight (Spark R Server)

Uses Python for ETL and R for Machine Learning. Creates engineered features and predicted purchases



Azure SOL Data Warehouse

Stores referential data such as demographics, purchases, products and enriched customer profiles to be ingested by HDInsight for future profile enrichment 8. Visualize



Power BI

Creates reports and visualizations based on the aggregated data and results from HDInsight.

8. Enriched customer profile (external table)

Sample Dashboard



Cortana Intelligence Suite



Cortana Intelligence Suite | Overview

Cortana Intelligence is a fully managed big data and advanced analytics suite in the cloud that transforms data into intelligent action.

Cortana Intelligence...

- Allows you to collect, manage, process and store all your data that can seamlessly and cost effectively grow over time in a scalable and secure way.
- Provides easy and actionable analytics powered by the cloud that allow you to predict, prescribe and automate decision making for the most demanding problems.
- Enables intelligent solutions through cognitive services and agents that allow you to see, hear, interpret and understand the world around you in more contextual and natural ways.



Cortana Intelligence Suite | Advantages



COST

There are no upfront costs or COGS (Cost of Goods Sold) component costs associated. Meaning there is no need to invest in hardware, software, and/or IT maintenance. This translates into a substantial reduction in business risk.



SCALABILITY

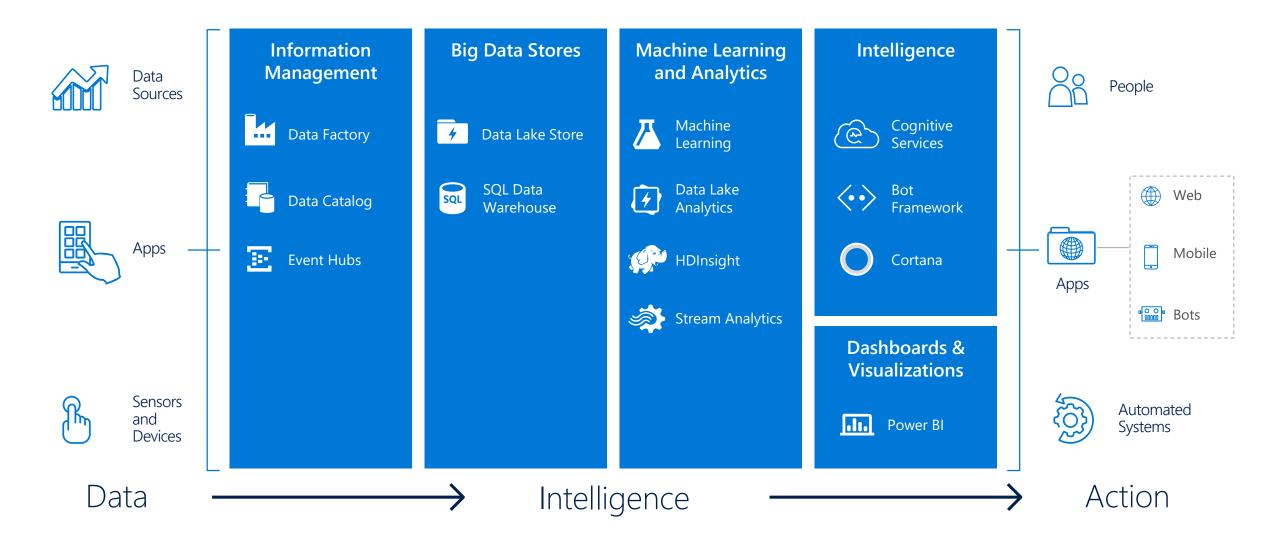
Servers for computing and/or storage can be deployed and scaled on an as-needed basis and can be done quickly and easily. This effects the cost efficiency advantage of a cloud-based solution with a pay-for-what-is-used policy.



GROWTH

Features, components, and capabilities are consistently being introduced and evolved in Cortana Intelligence Suite. As such, they can easily and quickly be implemented in a cloud-based solution.

Cortana Intelligence Suite | Overview

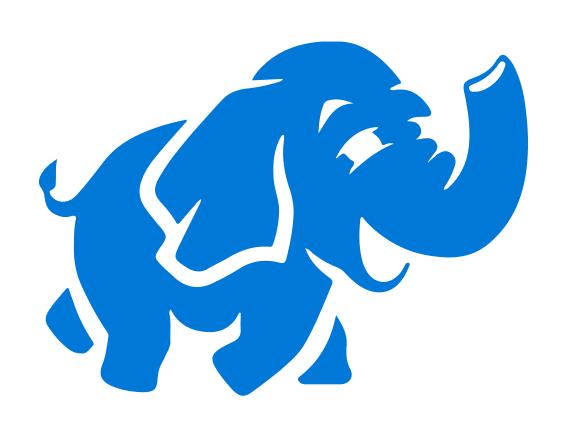


Appendix

Cortana Intelligence Suite | Used in this Solution

HDInsight

HDInsight allows you to easily spin up enterprisegrade open source cluster types guaranteed with the industry's best 99.9% SLA and 24/7 support. We guarantee this SLA for the entire big data solution, not just the VM instances. HDInsight is architected for full redundancy and high availability including head node replication, data geo-replication, and built-in standby NameNode making HDInsight resilient to critical failures not addressed in standard Hadoop implementations. Azure also offers cluster monitoring and 24x7 enterprise support backed by Microsoft and Hortonworks with 37 combined **committers** for Hadoop core, more than **all other** managed cloud providers combined to support your deployment and the ability to fix and commit code back to Hadoop.



Cortana Intelligence Suite | Benefits

Cortana Intelligence Suite enables you to realize your business outcomes by providing tools to transform data into intelligent action. It transforms entire systems of production, management and governance by enabling you to reap business benefits such as:



Improve visibility and prediction accuracy



Get the right products to the right places efficiently



Offer customers exactly what they want, when they want it



Fix problems proactively before they start



Capture new business opportunities

Use Cortana Intelligence Suite to improve outcomes and solve challenges across all aspects of your business.