

GET MORE VALUE OUT OF BIG DATA

Enterprise data is increasing at an alarming rate. An International Data Corporation (IDC) study estimates that data is growing at 50 percent a year and will grow by 50 times by 2020. Extracting meaningful value from this plethora of data will mean the difference between business success and failure. Without an effective process to manage the incomplete, inaccurate or duplicate data coming from these rapidly growing data sources, existing systems can quickly become overwhelmed by the volume and complexity and miss opportunities for success.

The challenges posed by Big Data do not change the underlying truth; organizations need quality data to improve current business practices, increase customer intimacy, increase process efficiency, reduce costs, and analyze risk. Without trust in enterprise data, an organization's sales team will question the quality of the contact information for prospects, customer service won't be able to distinguish between high-value customers and occasional customers, and marketing campaigns will be ineffective in reaching the right audience at the right time.

AUTOMATED, BUILT-IN BEST PRACTICES

Novetta Entity Analytics is designed for ease of use and automates built-in best practices to empower business users with new insights and results.

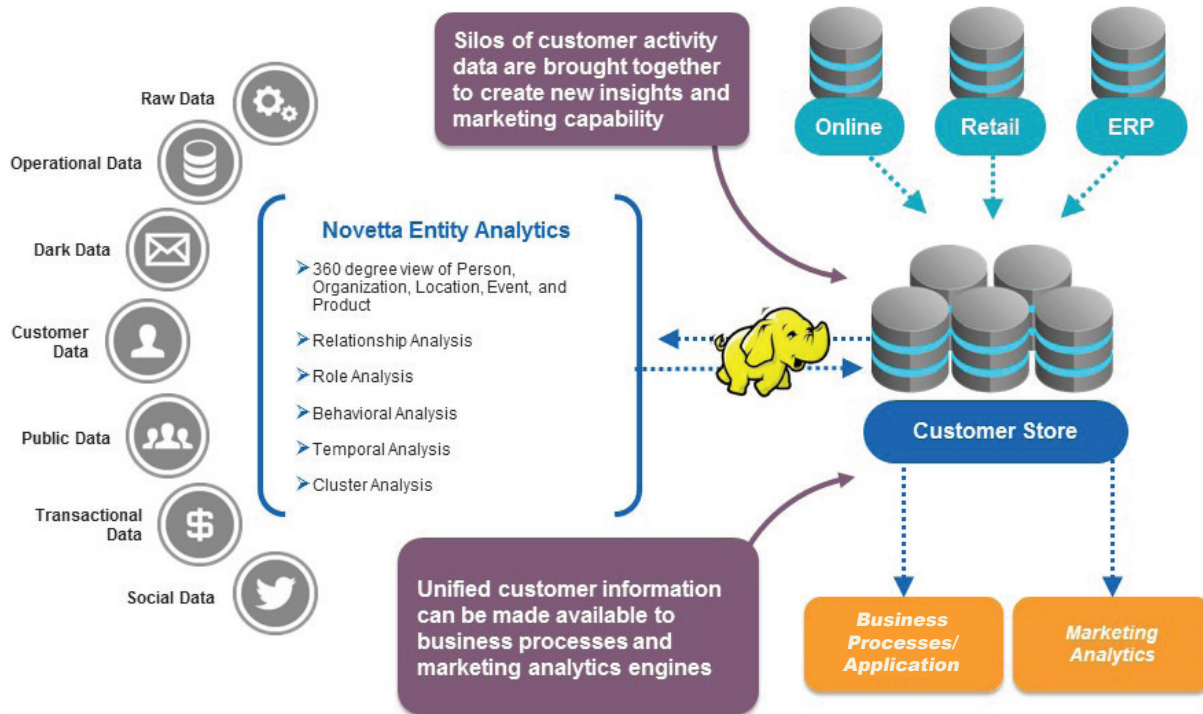
Users of all levels benefit from workflow which enables them to group records effectively and efficiently into entities. Users have easy access to configurable, pre-built strategy rules that define the criteria for joining records together into the appropriate entity.

Novetta Entity Analytics is designed so novice users can get started quickly, while expert users can further optimize data by defining new entity types, adjusting thresholds, or customizing built in strategy rules.

AT A GLANCE

Novetta Entity Analytics:

- Accelerates operational insights by constructing complete profiles from any volume of data from any application
- Links structured and unstructured data to unlock the hidden insights of all enterprise data
- Improves enterprise business decisions with a fully integrated data quality analysis and measurement workflow
- Lowers costs with its proven track record of solving large complex data integration and management problems using a predictable, linearly scalable platform
- Increases value of enterprise systems with flexible and non-invasive integration

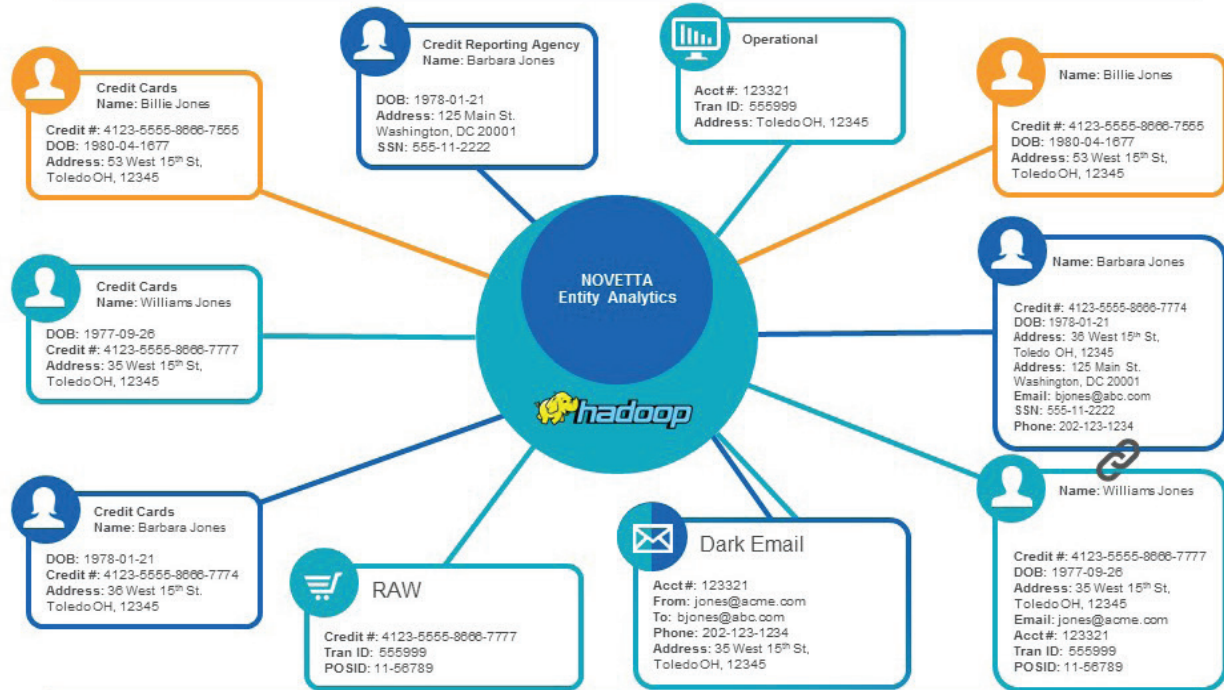
FIGURE 1: NOVETTA ENTITY ANALYTICS FOR CUSTOMER ANALYSIS


IDENTIFY HIDDEN INSIGHTS BURIED IN YOUR DATA

Novetta Entity Analytics leverages multi-source data profiling, integration, entity resolution and analysis to enable organizations to put the trust back into their data. We deliver complete visibility into the data driving their enterprise. Whether it is process optimization, business intelligence, customer and marketing analytics, fraud detection or risk analysis, Novetta can help quickly tear down the data silos across the enterprise and detect the insights that drive better decisions.

PROVIDE UNIFIED VIEWS ACROSS MULTIPLE SYSTEMS AND SOURCES

In order to make data-driven decisions, organizations need a clear picture; unification across data sources is essential. Identifying new insights from different data workflow is impossible without a trusted and repeatable data workflow process. Novetta Entity Analytics provides non-invasive workflows that preserve data integrity without changing or manipulating source data. This builds trust and enables multiple teams and processes to get value from the same data. With an integrated data discovery, analysis, and integration workflow, Novetta Entity Analytics decomposes and maps the attributes of any data source into models of a person, organization, location, event or product. Using advanced statistical techniques, Novetta Entity Analytics determines whether two entities are the same or related (e.g., sharing an address or phone number) to construct a multi-dimensional enterprise index and views across the enterprise.

FIGURE 2: MULTI-DIMENSIONAL ENTERPRISE INDEX


Novetta Entity Analytics constructs a multi-dimensional enterprise index of people, locations, organizations, events, products, and their relationships across multiple data sources without the need to replicate data. This enables an organization to support multiple data protection laws and governance rules, as well as matching and linking requirements across an enterprise. By leveraging our multi-dimensional index, organizations can rapidly construct a complete unified view of a person no matter how fragmented or incomplete the original source records. By employing Novetta Entity Analytics, organizations gain a clear picture of what is occurring across the enterprise.

Leveraging unified views and link analysis, an organization can detect hidden connections. In the fictitious example above, the investment company ACME has data spread across their enterprise relating to Barbara Jones, William Jones and Billie Jones. Each source has different fragmented records that make it difficult for a customer service or sales representative to effectively contact Barbara or know that she is also an employee of ACME Investments. The only visibility of Barbara the representative has is of her customer address, which is provided through the CRM system. The representative would have missed her connection with William Jones via an email communication linked to multiple customer data systems across the enterprise.

It is through this email connection that a representative would have noticed an unexpected relationship. Then pivoting and viewing the data from the perspective of William Jones, and applying a time-series analysis, the representative would have seen that William’s credit card account opening occurred shortly after the email between Barbara and William. This would be useful information not only in understanding what lead William to becoming a customer, but how to leverage that for additional services to sell.

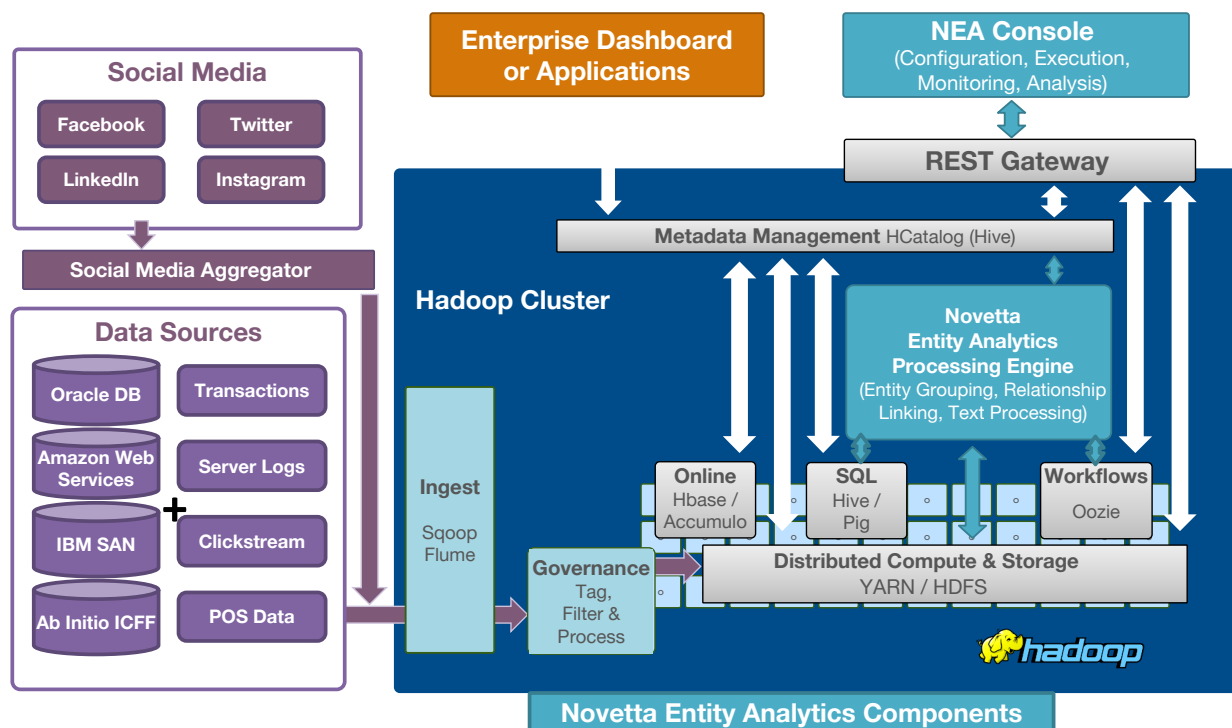
Novetta Entity Analytics solves this problem by constructing its multi-dimensional enterprise index, which connects the fragments providing a complete, unified view of the totality of Barbara's information across the enterprise. Novetta Entity Analytics goes a step further and highlights the connection between Barbara and William, which provides insight into the communications the organization had with William.

In another example, ACME can identify the connections about a customer held within different parts of the organization. The diagram above illustrates how fragmented data related to William Jones and his relationship to ACME is scattered across the enterprise beyond CRM data. There is raw data taken from Point of Sale terminals with data related to the clerk and location. Additional data is stored within the Enterprise Data Warehouse relating to the purchases made with the card. If the Business Intelligence (BI) tools had access to these additional data points, ACME would be able to create more targeted and specialized campaigns and incentives. Using Novetta Entity Analytics, ACME can increase the value of their existing BI investments and accelerate their business's ability to detect hidden opportunities.

FEATURES

- Creates and manages complex views, relationships and hierarchies
- Improves data and entity quality with a full suite of cleansing and matching components
- Reveals patterns, trends, and relationships across enterprise data between people, locations, organizations, events and products
- Delivers an integrated, linearly-scalable platform that supports data integration, entity resolution and relationship analysis
- Supports Cloudera and Hortonworks, as well as AWS cloud services
- Detects behavior associated with customer retention, risk, and fraud

FIGURE 3: NOVETTA ENTITY ANALYTICS ARCHITECTURE



SECURE YOUR DATA AND GROW YOUR BUSINESS

Data Integration and Quality Assurance

Novetta Entity Analytics turns silos of enterprise data into valuable resources of business opportunity. Its grouping and linking workflows utilize advanced statistical techniques to automatically resolve and manage data quality issues that normally require manual intervention. Novetta Entity Analytics is able to support 360-degree views across multiple domains or entity types (person, organization, location, event, and product). Novetta Entity Analytics provides insight into quality enterprise data as well as the resolved entities. With this increased visibility into duplication, integrity, and cleanliness of source data, organizations are able to focus attention on the applications and systems that directly affect business decisions.

Data Protection

Novetta Entity Analytics enables role-based access to protect Personally Identifiable Information as well as apply rules that protect individuals and sensitive data from disclosure. It meets the strict requirement for role-based access and data protection with multiple US Government Protection Level 3 accreditations.

International Data Support

Novetta Entity Analytics supports the ingestion, processing, integration, and management of both structured and unstructured data from a variety of document formats, encodings (ASCII, Unicode), and database types.

Scale and Speed

Novetta Entity Analytics has been successfully deployed to support hundreds of structured and unstructured sources with tens of billions of records. Whether it is a simple three node cluster or complex cluster with hundreds of Hadoop nodes, Novetta Entity Analytics provides the linear scalability organizations need to scale up and down based on business needs. With Novetta Entity Analytics, analysts can answer multiple, complex "what if" questions in the time it takes other systems to answer the first simple question.

Flexibility

Novetta Entity Analytics augments existing business intelligence, master data management and data integration solutions, to empower organizations to leverage less trusted and ephemeral sources while connecting them back to these trusted enterprise applications. Organizations can perform analytics designed for the complexity of Big Data variety, volume and velocity, and feed the results into an existing system. Novetta allows you to leverage new datasets without unnecessary and expensive disruptions to current enterprise processes.

Cross-enterprise Information Sharing

Novetta Entity Analytics accelerates the business value of data with multi-team support. Its unique design enables multiple teams and individuals to use the same data simultaneously and ask many questions without needing to make multiple copies of the data.

ABOUT NOVETTA

Headquartered in McLean, VA with over 650 employees across the US, Novetta has over two decades of experience solving problems of national significance through advanced analytics for government and commercial enterprises worldwide. Novetta's Cyber Analytics, Entity Analytics and Multi-INT Analytics capabilities enable customers to find clarity from the complexity of Big Data at the scale and speed needed to drive enterprise and mission success. Visit www.novetta.com for more information.

For innovative solutions for today's most mission-critical, advanced analytics challenges, contact Novetta:
(571) 282-3000 | contact@novetta.com | www.novetta.com