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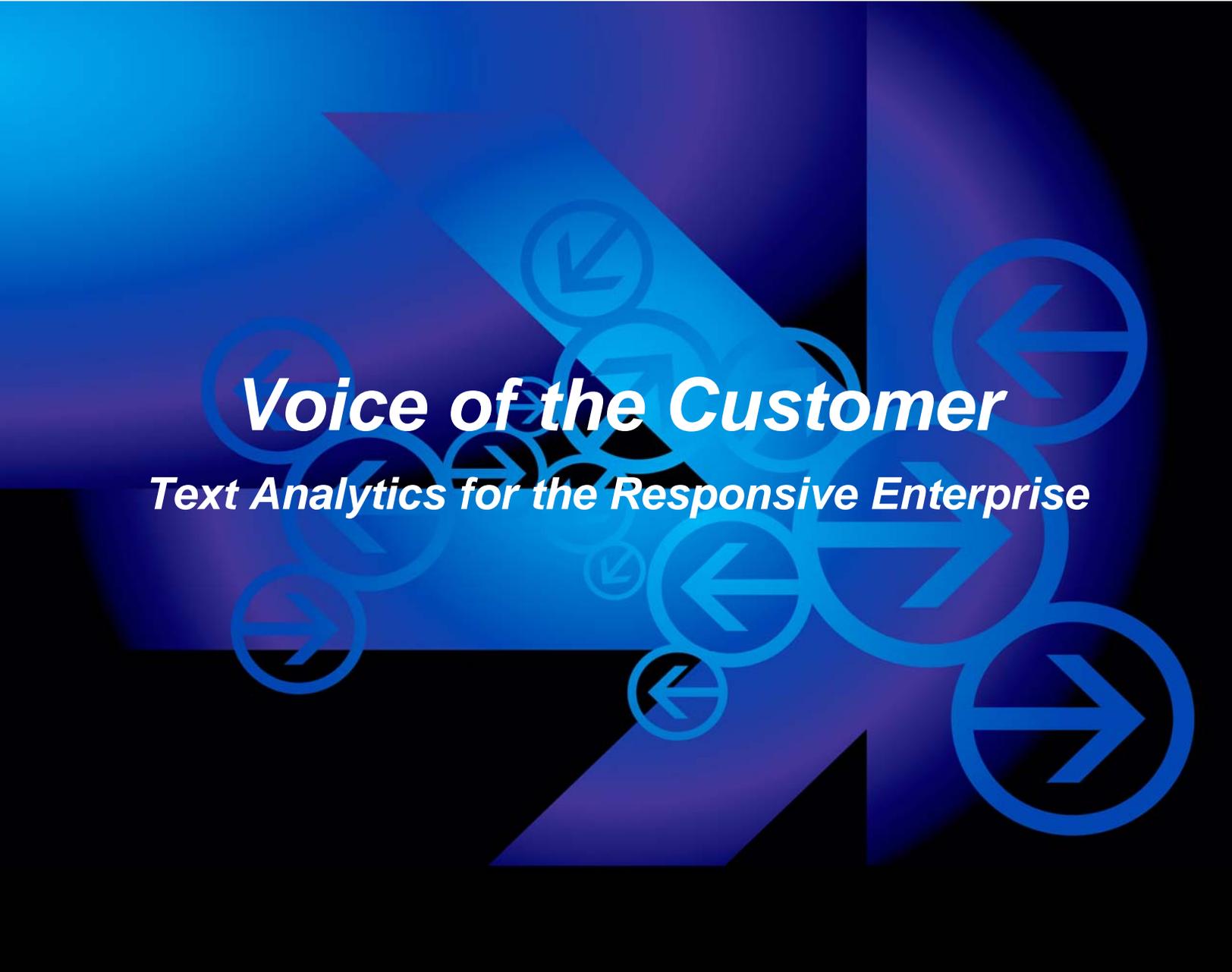
Voice of the Customer

Text Analytics for the Responsive Enterprise

IBM VOICE OF THE CUSTOMER SOLUTION PROFILE

By Seth Grimes

TABLE OF CONTENTS

IBM VOICE OF THE CUSTOMER SOLUTION PROFILE

IBM OmniFind Analytics Edition is an advanced solution for analysis and mining of unstructured information. The software is designed to help users find, analyze, mine and ultimately maximize the value of unstructured information, regardless of storage location or format. Visualization tools allow organizations to uncover new insights, patterns and trends in text-sourced information that can be used to manage risk, reduce costs and maximize customer service opportunities.

OmniFind Analytics Edition recently garnered the SSPA's "Innovation in Voice of Customer Award."

COMPANY OVERVIEW

IBM characterizes itself as "a proven leader in delivering on demand information technology and services, and has extensive experience in designing and implementing end-to-end solutions to solve real business problems – around the world and across many industries."

IBM traces its history to products invented the 1880s. The company has worked continuously since then to deliver hardware, software and service solutions that both automate and optimize everyday business processes, the latter through the application of leading-edge analytical methods. Referencing Hans Peter Luhn's seminal 1958 *IBM Journal* paper, "A Business Intelligence System," – Luhn writes of an "intelligence system [that] will utilize data-processing machines for auto-abstracting and auto-encoding of documents. Both incoming and internally generated documents are automatically abstracted, characterized by a word pattern and sent automatically to appropriate action points." – IBM could lay a claim to having laid the systematic foundations for both text analytics and business intelligence. OmniFind Analytics Edition should be evaluated in light of IBM's very long involvement in application of these and other enterprise technologies to the gamut of real-world business problems.

IBM has made significant investments in text analytics research and services in recent decades with hundreds of staff engaged in developing new capabilities and over 200 patents in the space. The company has been able to transform research innovations into technologies that meet special challenges that arise in dealing with unstructured text. The company provides as an illustration its ability to leverage work by IBM Research to create analytics packages and user interface (UI) interaction metaphors that allow business users to extract actionable insights from text "out-of-the-box," with minimal upfront configuration or domain adaptation required.

Analyst firm Gartner named IBM a Leader in its Magic Quadrant for Information Access Technology, stating "IBM offers extremely rich content analytics considering its comparative newness to the market, a reflection of its depth in information access technology."

PRODUCT SET

Today, IBM offers a complete information access portfolio, IBM Content Discovery, including the OmniFind family of products for search-based content access, the IBM Classification Module for auto-content-classification, and the award-winning IBM Content Analyzer (IBM OmniFind Analytics Edition) for delivering content-centric business intelligence. These offerings can be deployed stand-alone or combined with other products to enable solutions.

The company states that "enabling clients to tap their information assets is a key part of IBM's vision for information on demand: obtaining faster access to information across the enterprise helps enable people to make better decisions and optimize their businesses."

OmniFind Analytics Edition provides a horizontal text analytics and content-mining platform and provides application programming interfaces and a data model that enable straightforward integration with specific line-of-business applications. The integrated solution provides correlation analysis, trend analysis, delta analysis, automated alerts, drill-down navigation, semantic search and keyword search. IBM designed these advanced capabilities to reveal situations such as causes of customer dissatisfaction or detection of products that may require frequent repairs or a recall and track changes over time. Figure 1 depicts the OmniFind Analytics Edition user interface.

OmniFind Analytics Edition is based on the Unstructured Information Management Architecture (UIMA). UIMA provides an open framework and standard interfaces for creating and composing analytics capable of identifying and extracting the facts and relationships expressed in unstructured information. UIMA was created by IBM and released to open source in 2006 with the goal of accelerating adoption, usage and value-added innovation around the framework and interfaces. Development is managed as an Apache Incubator project. OmniFind Analytics Edition harnesses UIMA to support building full-text and semantic search indexes while OmniFind Analytics Edition deploys UIMA for information extraction and text analysis.

OmniFind Analytics Edition combines text analysis with associated structured detail, via optional integration with the IBM DB2 Warehouse, for richer insights. It is designed to be highly scalable, with end-user response times similar to keyword search. It provides a rich, out-of-the-box user interface for interactive analysis that is accessible and understandable by business users.

The current release of IBM OmniFind Analytics Edition is v8.4.1. With the planned August 2008 release of v8.4.2, the product will be renamed IBM Content Analyzer.

The screenshot contains labels: "Categories from Text Analysis", "Categories from Structured Data", "Keyword Search", "Data Views"

VOICE OF THE CUSTOMER APPLICATION

IBM's Voice of the Customer (VOC) application is targeted to organizations that collect and/or analyze customer information. It is designed for individuals who manage and conduct customer-care, call-center, business-strategy, marketing, quality-control and business intelligence functions. The company explains that OmniFind Analytics Edition "provides an out-of-the box user interface (UI) enabling business users to explore and analyze customer information, combining the ability to select and drill down on structured and extracted unstructured dimensions; use search to define subsets of data based on unstructured content; and visualize data in list, time-series, distribution, multidimensional correlation, and document views."

"The typical user for OmniFind Analytics Edition is a line-of-business analyst who uses the solution to analyze business performance, locate support bottlenecks or service problems, and identify churn issues and/or new marketing opportunities. Insights gained from the use of OmniFind Analytics Edition are fed back into the business through the user organization's usual business analysis and optimization processes. OmniFind Analytics Edition also offers alerting capabilities that enable automatic detection of emerging problems and triggering of business processes to mitigate them – for example, automatically identifying customer churn candidates from VOC analysis."

The solution streamlines and advances the collection, review and analysis of information housed in customer-care applications. It enables comprehensive review and analysis of both structured and unstructured content – recorded customer calls, customer email, text from chat sessions, contracts, survey comments, etc. – to reveal

valuable customer insights. OmniFind Analytics Edition is the first tool that provides this combined view.

IBM sees text analytics based VoC solutions as an emerging market, albeit one where business hurdles – for instance, helping prospective clients understand the business benefits of analytics-based VoC solutions and the projected return on investment (ROI) – are diminishing as organizations look for differentiation in customer service and customer insight. The solution was launched in the second quarter of 2007.

The solution additionally answers the demands of diverse functions such as customer churn alerting and online media analysis for corporate brand reputation monitoring. Outside the VoC realm, OmniFind Analytics Edition supports quality/warranty insight and quality early warning; compliance investigations and eDiscovery; contracts insight; and healthcare-payer coverage optimization. More generally, it supports delivery of content-centric business intelligence and content dashboards in enterprise content management deployments.

DEPLOYMENT

IBM licenses OmniFind Analytics Edition for in-house installation and use. The company provides optional business and technical consulting and integration services for text analytics-reliant solutions for Voice of the Customer and the gamut of enterprise challenges. IBM Global Business Services has been the primary services partner for VoC solutions; however, the technology arm of the company is expanding its relationships with other system integrators as well.

Solution deployments may be complemented by optional use of the IBM Classification Module, which uses a more basic set of text analytics capabilities in conjunction with statistical modeling and traditional business rules to provide automatic, adaptive classification of content (including VOC-related content, such as customer surveys). IBM Classification Module and OmniFind Analytics Edition are often deployed together, with Classification Module performing a first-pass organization or prioritization of customer content (e.g., based on problem area, customer type, even sentiment level) to focus second-phase detailed analysis with OmniFind Analytics Edition.

Additionally, IBM content-analytics solutions can leverage the full power of IBM's information management infrastructures, including the company's market-leading enterprise content management platforms such as IBM FileNet P8 and DB2 data warehouse capabilities, to provide end-to-end information storage, management and insight solutions.

IBM recommends that users "focus on a solution that's easily usable by the key business stakeholders (e.g., analysts in the customer service organization) as it will enable rapid adoption and easier justification of ROI benefits. Ensure that any solution you choose integrates both structured and unstructured data, providing the 360° view that only the combination of the two can provide. Ensure as well that the solution does not require you to pre-identify or define issues to be identified in unstructured content, like call logs, as that will limit your insight to what you're expecting and prohibit serendipitous discovery of business optimization

opportunities. And finally, deploy VOC in the context of an overall information management and insight strategy, avoiding siloed technology and point solutions that will not address future information management and insight needs across the organization."

IBM is currently piloting a managed (outsourced) services offering for VOC, but has not announced a timeline for general availability.

SUMMARY

IBM's long history developing and deploying enterprise technologies and solutions for core business functions, including customer care, marketing, product design and quality needs that are part of Voice of the Customer initiatives, positions the company as an excellent choice as a VOC solution provider. The OmniFind platform provides essential, highly scalable integration and analytical infrastructure as well as bindings to data warehousing technologies that facilitate unified analysis of structured and unstructured information. In Analytics Edition, the company has designed a user interface for business analyst usability, free of the complications that often accompany interfaces designed for complex business intelligence, data warehouse or statistical analysis needs. Instead, the Analytics Edition UI provides for sophisticated linguistic analysis, information extraction and trend analysis linked specifically to the need to deliver insights into customer issues and business operations. It constitutes a strong solution for Voice of the Customer and other text analytics that require both high-performance, scalable analysis of unstructured information and integration of structured-unstructured analyses.

AUTHOR INFORMATION

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Seth Grimes is a business intelligence, data warehousing, and decision systems expert. He founded Washington D.C.-based Alta Plana Corporation in 1997 and consults on business intelligence and analytics strategy and implementation for clients in the U.S. and internationally. In addition to consulting, Seth writes and speaks on data management and analysis systems, industry trends and emerging analytical technologies.

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