Exalead CloudView for the Automotive Industry

Extract Radical New Value from Your Existing Information Assets

Concrete Benefits in Record Time

Deployed rapidly and non-intrusively alongside your existing information systems, CloudView can significantly boost the usability, agility and performance of your information systems in a matter of just weeks, with substantial bottom-line benefits. For example, in less than three months on average from conception to deployment, Exalead automotive customers have achieved successes like these with innovative search-based applications (SBAs):

- An automotive transport and logistics company radically improved the timeliness and usability of its Track & Trace portal while slashing per-user costs by 50%.
- A large parts manufacturer solved one of its most pernicious challenges – understanding and controlling tooling and tuning costs – by correlating PLM, ERP and Program data.
- A parts manufacturer significantly improved the accessibility and effectiveness of its inventory management system, with an anticipated cost reduction of up to 50%.
- An original equipment manufacturer (OEM) is securing more favorable pricing contracts from vendors thanks to global spend analysis based on aggregate data from 23 ERP systems in 23 countries.
- An OEM has reduced quality-related risks and associated costs while eliminating thousands of labor hours spent manually compiling and correlating quality-related test data.

Exalead CloudView SBAs have enabled these customers to achieve these successes by using indexing and semantic processing technologies derived from the world of the Web to break down common information access barriers: siloed data, complex user interfaces, sluggish performance, and rigid systems that are slow to develop and difficult (or impossible) to adapt. With no physical data integration, complex forms, SQL queries or even training, CloudView SBAs enable users to:

- Instantly locate and share information across thousands of internal and external silos
- Generate real-time operational reporting with unlimited drill-down against all data facets
- Gain critical new customer and market insight via targeted mining of Web content

Let's now take a more in-depth look at some of the ways Exalead automotive clients are using CloudView SBAs, with profiles grouped under these three principal functions:

1. Agile knowledge management
2. Real-time operational reporting
3. Voice of the Customer analytics

SOLUTION FEATURES

Find
- Global, real-time data access
- Simple Web-style search
- Conversational interaction

Discover
- 360° view of business entities
- Intuitive faceted navigation
- Quick composite & mash-up applications

Analyze
- Real-time operational intelligence
- Automatic analytics on every data facet in source systems
- Zero training usage

"The elements that make search powerful are not necessarily the search box, but the ability to bring together multiple types of information quickly and understandably, in real time, and at massive scale."

Susan Feldman, IDC LINK, June 9, 2010

1) Agile Knowledge Management

AN INSTANT BRIDGE FOR INFORMATION SILOS

The CloudView platform meaningfully aggregates cross-silo data, whether structured (like database content) or unstructured (like email and documents), into a single structured repository (a multi-dimensional index). As a result, staff, partners, suppliers and customers can benefit from one-stop access to global data concerning key business entities (parts, products, programs, services, customers etc.), facilitating knowledge sharing, asset reuse and collaboration.

A SECOND-NATURE MODE OF ACCESS

Moreover, information can be retrieved from this unified resource through a simple text box. Due in large part to the influence of the Web, search has become the dominant mode of retrieving and navigating information in almost all user contexts, and users' familiarity with search enables them to use CloudView search-based applications without training. Given the complex, geographically dispersed nature of information systems in the automotive sector, deploying such a natural, rapid mode of access constitutes a distinct competitive advantage.

A single, familiar text box for launching any search, discovery or analysis task.

USE CASES: AGILE KNOWLEDGE MANAGEMENT

OEM Manufacturer
Unified Information Access

A top vehicle manufacturer has improved efficiency, strengthened work team collaboration and boosted information asset reuse by launching CloudView on 70 000 workstations. The platform provides unified access to content on file servers, SharePoint Intranets (350 000 pages), Lotus Notes (250 000 TeamRoom pages), and Wiki sites and forums. The CloudView engine automatically extracts and categorizes data using the company's own business terms (vehicles, attributes, etc.).

OEM Manufacturers & Suppliers
360° Parts Vision

A leading OEM is using CloudView to achieve a global view of parts across different PLM silos (Enovia, Delmia, VPM, etc.) in order to:

- Improve parts reuse
- More easily identify replacement parts and improve data quality by identifying and correcting data anomalies (duplicates, missing/conflicting attributes)

The system also enables the company to enrich its internal catalogs with information extracted from external catalogs and the Web.

Similarly, three other companies (two OEMs and an OEM supplier) are using 360° Parts SBAs to achieve a unified view of parts across PLM systems and CAD libraries. The goal is to increase productivity for component engineers by giving them access to a single source of information, and to improve their decision-making through enhanced visibility into important performance and compliance criteria.

2) Integrated, Real-Time Operational Reporting

While conventional Business Intelligence (BI) continues to fulfill the need for deep historical reporting and highly complex analytics, CloudView search-based applications (SBAs) fulfill the need for flexible, day-to-day operational intelligence supporting a wide range of business processes.

CloudView SBAs provide natural, timely access to analytical data currently only accessible to expert users, or available only through periodic, pre-packaged reports.

This allows a broad base of users to benefit from the significant assets held inside systems such as Product Lifecycle Management (PLM), Program Management (PM), Supply Chain Management (SCM), Customer Relationship Management (CRM), Enterprise Resources Planning (ERP), and Business Intelligence (BI).

BENEFITS

- Gain real-time operational visibility
- Enhance agility in identifying and reacting to exceptions
- Improve day-to-day and long-range decision-making
- Extend decision intelligence to a broader base of users

USE CASES: REAL-TIME OPERATIONAL REPORTING

Parts Manufacturer
Global Cost Reporting
A large automotive parts manufacturer is using a CloudView SBA to automatically calculate global tuning and tooling costs for parts manufactured at 190 sites in 29 countries. To produce these reports, the system automatically extracts and aggregates data from the company's PLM system (ENOVIA), ERP system (SAP) and Program Management files. In addition to giving the manufacturer new insight into and control over tooling and tuning costs, the unified view of parts information the application provides is increasing efficiency for multiple business processes. The original Proof-of-Concept (POC) for this application was developed in just two weeks, with a pilot version released one month later, followed by a final release in only a few months.

Parts Manufacturer
Program Management
In just two months, a large automotive parts manufacturer was able to use a CloudView SBA to automate Program Management reporting previously produced using Microsoft Excel (with more than 50 reports each for more than 100 programs). Switching to a CloudView SBA enabled the manufacturer to turn a cumbersome manual process into a rich Web-based service with dynamic faceted navigation (with original data drill-down), ad hoc analytics tailored to the needs of individual business groups, and natural language querying. However, the SBA's true value lies in the way any executive can use it to identify and investigate issues like project delays or cost overruns, and the ways in which individual workers can use it to drill down into their own tasks to understand these issues and take corrective actions.

As an added benefit, the application is now also being used to facilitate the worldwide purchasing of tools, materials and parts for program teams distributed across several sites and several time zones (US / Europe / Asia).

Vehicle OEMs
Quality Management
Two leading OEMs are using a CloudView SBA for visibility into their products as they progress through the assembly lines of contract manufacturers, tracking module test results, product quality and failures. Before CloudView, it took weeks to compile and correlate test data and allowed visibility into only a small set of parameters.

Now, the CloudView SBA allows instant tracking and analysis of thousands of product test results and quality parameters for each component. As a result, quality engineers can detect issues and trends early in the process and make corrections in real-time during the manufacturing process, reducing costs and improving end product quality.

CloudView SBAs enable real-time operational reporting across data silos. What's more, users can generate reports based on any data facet of interest —with no SQL queries and no calls to IT.
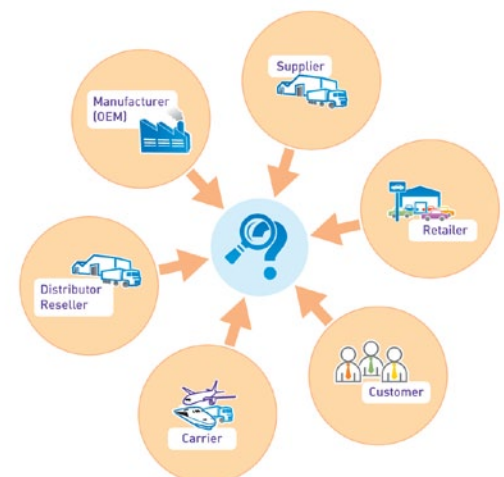
All supply chain actors can benefit from real-time visibility into operations locally, or worldwide.

Automotive Transport & Logistics Provider

Track & Trace

A large automotive transport and logistics operator powers its Track & Trace portal with a CloudView SBA, providing customers with near real-time information on 100 000 daily events involving 600 000 vehicles across 80 countries. Switching from Oracle to CloudView for information access enabled the company to:

- Dramatically improve the usability of the portal
- Cut data latency from 24 hours to 15 minutes (could optionally be set to quasi- real time)
- Drop the query processing time to 2 seconds maximum
- Expand the user base tenfold with no end user training
- Achieve a 99.98% availability rate with a limited material investment
- Offer ad hoc operational reporting on every data facet maintained in source systems
- Slash per user costs 50%

The initial application prototype was developed in 10 days, with a first production release serving several thousand users deployed in just a few weeks.

Parts Manufacturer

Inventory Management

A leading parts manufacturer is using a CloudView Inventory Management SBA to reduce costs, increase reseller satisfaction and boost sales. The SBA provides operational reporting on data in their Infor ERP KBM system, offers real-time monitoring of stock levels via the Web, calculates optimal stock rotations, and aids in the development of price lists (incorporating customer margin analysis).

The SBA was deployed rapidly with a quick return on investment (ROI): the system enabled an infrastructure cost reduction of 50% over their legacy architecture, and it was immediately adopted by end users with no training.

OEM

Parts Inventory Management

Another customer is using a CloudView SBA to help its maintenance providers improve customer service and lower costs through a consolidated view of parts inventory across multiple, geographically dispersed parts databases. Prior to deploying the SBA, mechanics had to navigate complex information systems to locate replacement parts. In addition to being difficult to use, these systems were not exhaustive and up-to-date. Accordingly, mechanics often resorted to calling parts warehouses around the world to check availability. Sometimes this resulted in sourcing from an unnecessarily distant location, needlessly delaying repairs by several days. Now, the CloudView SBA indexes data about parts from all existing systems, plus new sources like SAP. This enables mechanics to rapidly search a single comprehensive, real-time parts inventory to quickly and cost-effectively respond to customer needs, and it enables the company to monitor stock levels to avoid costly overstocks or stock-outs.

Vehicle OEM

Supply Chain Management

A large OEM is leveraging CloudView for a Supply Chain POC that provides real-time tracking of vehicles from the production line through to commercialization. Deployed non-intrusively in just two weeks, the POC is designed to help the manufacturer manage its production line backlog, control logistics in real time, optimize logistics processes, and enable horizontal operational reporting throughout the logistics pipeline.

STANDOUT FEATURES

- Supports non-intrusive, real-time reporting
- Reporting and analytics can be launched with simple natural language queries and refined by dynamic, one-click menus
- Offers unlimited drill down on any and every data attribute maintained in source systems
- Can deliver sub-second responsiveness against large data sets
- Can be used with no training
- Can extract intelligence from both enterprise and Web sources
- All reporting and analytic functions are 100% automated (no data integration, complex data modeling or SQL queries required)

3) Voice of the Customer (VoC) Analytics

Many Exalead automotive customers are taking advantage of CloudView's semantic capabilities to better understand their customers and their market. Designed form the ground up to apply advanced semantic processing to Web-scale volumes of data, CloudView VoC SBAs can cross-reference enterprise content (programs, products, people, etc.) with select Web sources (industry sites, the media, blogs, forums, social networks, etc.), in order to:

- Analyze new product reception
- Identify potential quality issues
- Identify and monitor customer demand trends

For example, a vehicle OEM could use a CloudView SBA to transform Web data from classified ad websites like CloudView-powered Yakaz.com site into a dashboard view of the after-market for its vehicles: How many ads are posted for a particular make or model? What is the average vehicle age and price? What is the distribution by geographic region, color, mileage, etc.? One could even extend access to such a system to dealers so they can cross-reference Web and CRM data to see which of their customers are selling their vehicles.

Dealers (and other industry actors) can likewise benefit from a 360° Client View SBA that incorporates Web data along with information such as financing and credit data, purchase history, warranty information and maintenance history. For example, website log data can be mined to identify recently viewed pages and online activities to automatically generate timely and relevant upsell/cross-sell recommendations.

Let's look now at similar VoC SBAs deployed right now by top OEMS.

USE CASES: VOC ANALYTICS

OEM Manufacturers
Contextualization of Sales Data
Several large OEMs are using CloudView SBAs that extract Web content on market trends, competitive products and consumer reviews, and use that data to contextualize sales and sales forecasting data the SBA consolidates from multiple sources. As a result, these companies have been able to improve the accuracy of their sales forecasting, increase revenue through early visibility into market and consumer trends, and reduce costs through better visibility into demand.

OEM Manufacturer
Web-Enhanced 360° Customer Vision
Several OEMs who are using CloudView for a federated, 360° view of customers across diverse enterprise sources (CRM, ERP, email, customer support databases, etc.) are now further enriching customer profiles with qualitative content extracted from the Web: website logs, social and professional networks, automotive forums, etc. This enhanced view:

- Allows call center staff to respond more quickly and effectively to customer requests
- Provides sales and marketing staff with new insights into customer needs, and
- Enables management to understand correlations between customer system usage and warranty claims, and between supplier quality and associated claims.

OEM Manufacturer
Quality Monitoring
Another OEM is using a Voice of the Customer SBA to monitor quality issues that surface on the Web. The application extracts and organizes pertinent quality-related information from consumer forums so the company can spot and respond to potential issues at an early stage.

BENEFITS

- Achieve a deeper and more timely understanding of customer demand
- Improve sales effectiveness
- Build customer loyalty
- Identify potential quality issues at an early stage
- Anticipate and accelerate crisis management

STANDOUT FEATURES

- Distills high volumes of 'weak signal' Web data into actionable intelligence
- Uses semantic technologies to assess the qualitative nature of content (sentiment analysis) and puts this content into structured format for easy integration in engagement workflows
- Provides at-a-glance dashboards (cloud maps, heat maps, charts, graphs, etc.) for at-a-glance understanding
- Can add or remove sources on the fly: no index rebuild required
- Scales to any volume of data or number of users

This SBA crawls car forums and other resources to identify potential quality issues, and uses semantics to automatically structure this data by model, make, year, type of symptoms, and more.

Why CloudView?

Exalead CloudView has emerged as the market's top platform for search and search-based applications (SBAs) because CloudView offers performance, usability and agility unmatched by any of its competitors:

- It is the only enterprise search platform developed simultaneously for the Web and the enterprise, enabling it to apply advanced semantic processing to Web-scale volumes of data while delivering exceptional usability.
- It is ideally engineered to enable information access, discovery and analysis in a cloud environment.
- It offers equally adept analysis and processing of both unstructured and structured data, with a unique capacity to transform unstructured data (documents, email, etc.) into structured data and to meaningfully connect it with existing structured data (databases, PLM, ERP, SCM, CRM, etc.).
- It is extremely resource-efficient, delivering high performance using remarkably lean resources. CloudView uses only a tiny fraction of the resources required by conventional database systems, and on average 1/5th the hardware resources of its competitors, providing on average real-time indexing of 100 million documents and processing 20 queries per second on a single commodity server. And, CloudView can be scaled linearly and infinitely simply by adding low cost servers—no painful data migration or expensive proprietary hardware required.

- It features unique administrative tools that accelerate development and facilitate management, like a drag-n-drop mash-up builder and WYSIWYG control over data relevancy and ranking. In fact, Proofs-of-Concept for CloudView SBAs can typically be developed in a matter of days, with deployment of production applications achieved in only a few weeks or months.

In addition to these platform advantages, no other vendor has Exalead's depth of experience in deploying successful SBAs.

However, as seeing is believing, we invite you to contact us today for a demonstration of some of our automotive applications, or to request a Proof-of-Concept (POC) addressing your toughest information access challenges and built using your own data, a process that usually takes our team only 5-7 days. We guarantee you'll be impressed with the extraordinary value CloudView can reveal in the information assets your already possess.
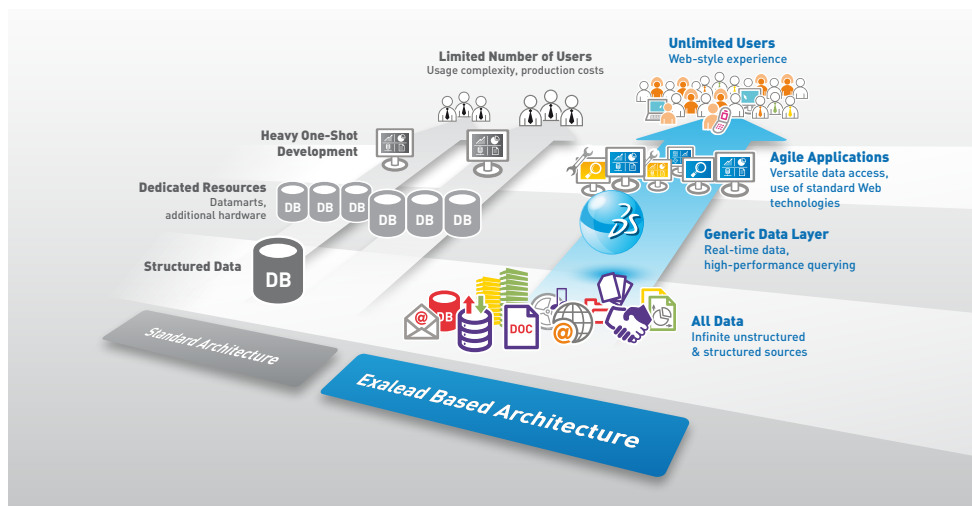
Contact us to discover for yourself why Exalead is the right search platform to work with your structured and unstructured information.
Visit www.exalead.com to learn more.

About Exalead

- E.U. Headquarters, Paris, France - U.S. Headquarters, San Francisco, CA
- Offices in 7 countries
- 300+ customers worldwide
- Founded in 2000 by AltaVista executives

Exalead is a division of Dassault Systèmes, whose 9000 employees and 6000 partners provide 3D based applications, PLM based applications, and Search based applications to more than 115,000 customers in 80 countries.

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