



3DEXPERIENCE™

EXALEAD CLOUDVIEW

Powering a New Generation
of Search-Based Applications



EXALEAD CloudView™ is one of the most sophisticated and scalable solutions for Big Data applications in the enterprise and on the Web

EXALEAD CloudView combines advanced semantic technologies, rapid drag-and-drop application development and hybrid quantitative/qualitative analytics to bring a consumer-style information experience to mission-critical business processes. It allows enterprise IT organizations to meet demands for real-time, in-context, accurately-delivered information accessed from diverse Web and enterprise Big Data sources, yet revealed faster and with less cost than with traditional application architectures.

AGILITY, PERFORMANCE & USABILITY

Organizations need to gather, align and enrich their distributed, diverse digital assets and to deliver that information in a way that makes instant sense to users in their own context, anywhere, any time. **EXALEAD** offers best-of-breed search-based 360° data discovery technology to reveal simple full-text search, faceted exploration, and dynamic visualization of diverse, multi-source data. Its consumer-style information experience makes it simple for ordinary users to find, discover, analyze and share information wherever it lives, enabling organizations to improve knowledge capitalization and resource efficiency and to foster collaborative innovation.

EXALEAD CloudView is the infrastructure that powers EXALEAD's Information Intelligence applications. Comprised of the following core components, it collects all relevant business information from enterprise, cloud or Web sources and makes it available in a user-friendly manner:

- **CloudView Index**

Processes billions of queries and executes complex computations at sub-second rates

- **CloudView Semantic Factory**

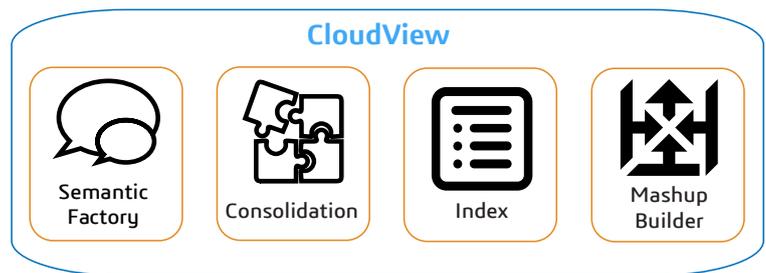
Aligns and enriches structured and unstructured data

- **CloudView Consolidation**

Supports flattening operations on documents

- **CloudView Mashup Builder**

Enables rapid, drag-and-drop creation of dashboards and applications



CLOUDVIEW INDEX

The Index performs three essential functions:

1. **Builder:** Builds and maintains the index for data coming from multiple streams, supporting huge volumes with low latency.
2. **Semantic Search:** Provides semantic query processing In tandem with the Semantic Factory, thus analyzing queries expressed in natural language and returning relevant results, even for incomplete or imprecise requests.
3. **Analytics:** Agile qualitative and quantitative analytics by aggregating, categorizing (faceting), and clustering data on the fly and performing query-time mathematical and statistical computations.

Examples

- Sample hardware cost for tweets: 1 billion records using 1 machine (20 cores@ 2Ghz, 100Gb RAM, < \$10,000)
- Sub-second on-the-fly exhaustive multi-faceting of 50 million tweet results on 20 cores
- On-the-fly exhaustive multi-faceting of 1 billion tweet results in 16 seconds on 20 cores, 8 seconds on 40 cores

Benefits

- Processes high volumes of data at low cost
- Empowers users to become self-reliant decision-makers
- Integrates intelligence from all relevant sources
- Guarantees secure enforcement of source-system rights
- Supports both qualitative and quantitative analytics with a single solution

CLOUDVIEW SEMANTIC FACTORY

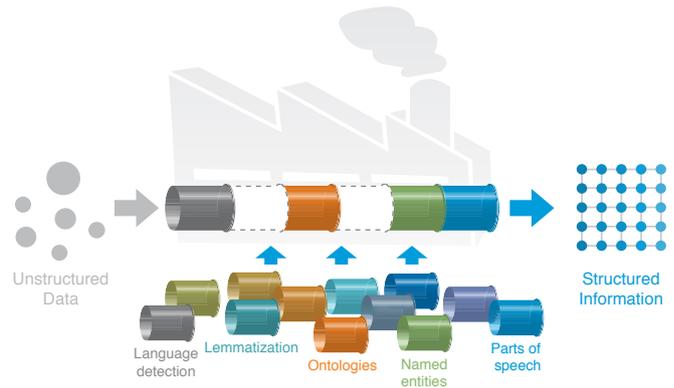
The Semantic Factory is a toolbox to analyze and structure real-world content. It enables you to extract business facts, relationships and opinions from huge stores of unstructured data (test results, technical documentation, benchmarks, etc.), and to meaningfully integrate that content with structured content from enterprise applications, databases and data warehouses. As a result, you can generate maximum value from existing assets while creating a single data layer to support business applications.

Highlights

- Semantic data normalization (fuzzy data consolidation, cleansing, metadata alignment)
- Detection of weak signals
- Semantic query interpretation
- Fully modular and configurable pipeline
- Easy integration of business rules
- Multi-lingual support (100+ languages out-of-the-box; optional extended pack)

Benefits

- Enriches structured data with valuable meaning from unstructured data
- Provides uniform access and reporting for heterogeneous data
- Automates the processing of large data volumes
- Achieves “virtual” data integration with no impact on source systems



CLOUDVIEW MASHUP BUILDER

The Mashup Builder is an interface for rapidly prototyping and deploying custom applications. No matter the number of users, you can prototype a robust proof-of-concept in one day, with a full production release in a matter of days or weeks. Simply drag-and-drop feeds from existing indices or external (databases, the Web, etc.) data sources into the Mashup Builder, then drag-and-drop the corresponding widgets for search, presentation and/or real-time analytics into a Web page template.

Highlights

- Optional data modeling for accelerated development (automatically applied to all underlying analysis, indexing and search configuration processes)
- An expansive library of 100+ out-of-the-box widgets for searching, exploring, and data visualization
- Eclipse integration to seamlessly develop, test and deploy plug-ins
- Simple and efficient UI administration with optimization and debugging tools

Benefits

- Rapid time-to-market
- Iterative development to reveal final result
- Easy design of business search logic

CLOUDVIEW CONSOLIDATION

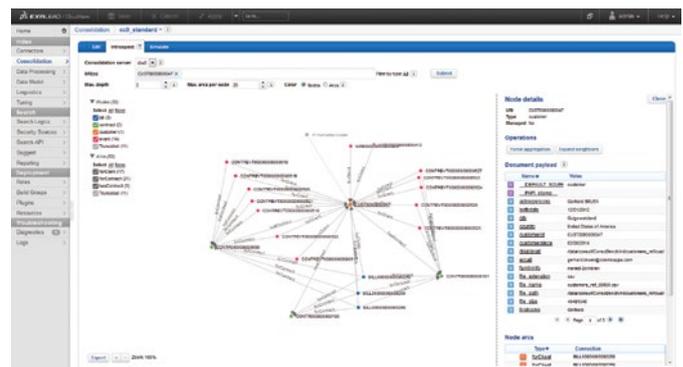
The Consolidation server is a graph-based component that efficiently supports flattening operations on documents. Crawl from different sources and link objects together in the server, then decide how to combine them into a richer document that will be pushed in the Index. And ensure that the document is up-to-date whenever a change occurs on any object contributing to its construction.

Benefits

- Simply and directly link objects coming from multiple sources within the product
- Lower the pressure on data source by crawling only documents needed, taking advantage of cache mechanism

Highlights

- Custom aggregation rules to combine documents taking advantage of the graph storage
- Automatic impact detection based on rules to replay aggregation when needed



Consolidation introspection console

CLoudVIEW OPENNESS

Part of the **3DEXPERIENCE** platform, CloudView uses state-of-the-art data connectors and an advanced Web crawler to gather multi-format data from virtually any source. This includes an intelligent extraction of complex structured data and associated rich metadata (attributes, rules, relationships, etc.) from sophisticated enterprise applications and data warehouse systems, and processing of the “grey” data that constitutes the bulk of today’s Big Data collections:

- Unstructured content like documents and emails
- Semi-structured data such as HTML and XML, including social media content
- Small but voluminous structured content streams, such as the machine data produced by the Internet of Things (smart utility meters, RFID readers, barcode scanners, weblogs and GPS tracking units)
- Content stored in platform Hadoop

Highlights

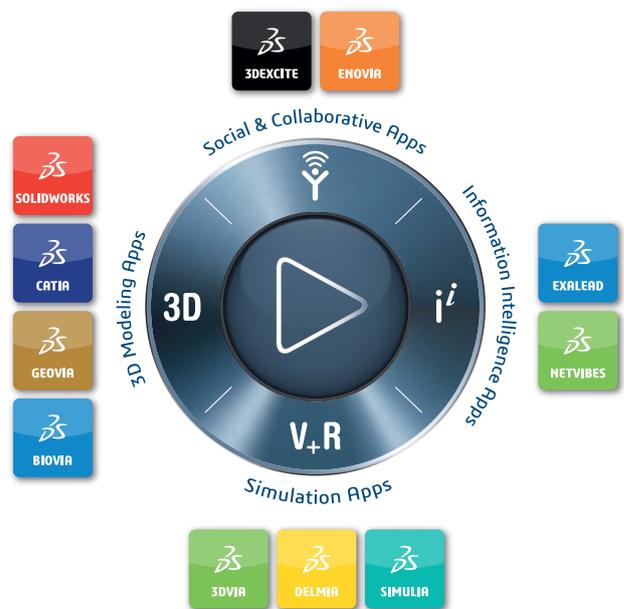
- Secure, non-intrusive data acquisition
- Choice of real-time, batch, or incremental updates
- Fail-proof checkpoint mechanism (writes/updates processed in “all or nothing” mode)

Benefits

- Delivers a fully-unified view of information
- Guarantees non-intrusive, secure and automated data collection
- Ensures high performance even at Big Data scale

Our 3DEXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes’ collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 210,000 customers of all sizes in all industries in more than 140 countries. For more information, visit www.3ds.com.



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