

# IBM Identity Resolution Version 4.1 Technical Information

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IBM Identity Resolution gives you a complete view of the individuals you are dealing with, including customers, employees, vendors, partners, watch list members, organizations, and more.

## **New for IBM Identity Resolution Version 4.1**

- Extended platform support for z/Linux.
- Enhanced name recognition capabilities including matching of out-of-order words, names consisting of more than three parts, improved fuzzy matching, and initials.
- Organizational name matching including global company names.

- Advanced capabilities in handling Anglo and Arabic cultural names.
- Web-based user interfaces and local language support: English, French, Spanish, German, Italian and Brazilian Portuguese.
- The user interface provides multilanguage support for an easier-to-use environment and deployment of EAS outside of English-speaking countries.

IBM Identity Resolution 4.1 provides an extraordinary platform on which to launch a comprehensive, real-time identity resolution solution. With Identity Resolution, organizations have the structured, real-time information needed to make smarter decisions, solve problems faster and serve customers better.

# Real-Time International Name Resolution

Identity Resolution has an integrated ability to determine which names belong to the same root name (e.g. Betty, Liz, and Eliza all root to Elizabeth). Proprietary algorithms compare names and evaluate similarities, detect errors and generic values, analyze name order (e.g. Smith Robert = Robert Smith) and determine if a name refers to an individual or to a company.

Additionally IBM Identity Resolution Version 4.1 adds enhanced name recognition capabilities built into the product, including names consisting of more than three parts, matching of out-of-order words, improved fuzzy matching, organizational name matching such as global company names, as well as handling of initials. IBM



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Identity Resolution allows you to search for entities within your resolved database. Searches can be performed to find an entire entity (e.g. Donald Bowsher of San Diego, CA), or on a single attribute

Identity Resolution v4.1 name recognition includes advanced capabilities in handling Anglo and Arabic cultural names.

cal coordinate (latitude and longitude) information.

#### **Configurable Data Quality Management**

Identity Resolution includes a suite of data quality management configuration options ranging from standardized number formatting, to date range rules, to domain testing and transaction reasonability.

# Real-Time, Stateless, Self-Tuning Entity Resolution

Identity Resolution is designed from the ground up to support your organization by delivering accurate identity information based on both real-time and batch data. Critical decisions must be made using the freshest data, but warehouses and mining technologies can't usually deliver upto-date, accurate information based on the most recent knowledge.

Using IBM's exclusive Entity Resolution™ technology, Identity Resolution solves this problem by keeping an up-to-date identity repository that is incrementally built by each piece of incoming data. No purges, sweeps or reloads are necessary—Identity Resolution only gets more precise as it continues to accumulate context over time. Identity Resolution easily adapts to your organization's data to ensure a perfect fit through time. Any name, number, address or other attributes can be used to match identities together in the system.

As new data is added, Identity Resolution continues to self-correct past decisions in real-time. For example, if a new piece of data indicates that two identities previously believed distinct are actually one person, Identity Resolution automatically detects this and "snaps" the two identities together in real-time.

(e.g. any customer with the last name of Bowsher).

#### **Real-Time International Address Hygiene**

U.S. and international address hygiene capabilities, embedded in Identity Resolution, provide real-time enhancements to incoming addresses. Additionally, the core address hygiene capabilities within Identity Resolution are enhanced when other IBM and third party tools are leveraged, including address validation and geographi-

## **Platforms Supported**

Platform	Architecture	OS Version Support	Database Version Support
IBMAIX	POWER4, POWER5	IBM AIX 5.2	IBM DB2 UDB 8.2, IBM DB2 for z/OS v8, Oracle 9iR2, Oracle 10g
Linux 64bit	Intel Itanium 2 (IA-64)	SUSE Linux Enterprise Server 9	IBM DB2 UDB 8.2, IBM DB2 for z/OS v8, Oracle 9iR2, Oracle 10g
Linux 32bit	Intel x86 (IA-32)	Red Hat Linux AS 3.0	IBM DB2 UDB 8.2, IBM DB2 for z/OS v8, Oracle 9iR2, Oracle 10g
Sun Solaris	UltraSparcII, UltraSparcIII	Sun Solaris 8, Sun Solaris 9	IBM DB2 UDB 8.2, IBM DB2 for z/Os v8, Oracle 9iR2, Oracle 10g
MS Windows	Intel x86 (IA-32)	Microsoft Windows 2000 & 2003	IBM DB2 UDB 8.2, Oracle 9iR2, Oracle 10g, MS SQL Server 2000
HP-UX	Intel Itanium 2 (IA-64)	HP-UX 11i IPF	IBM DB2 UDB 8.2, IBM DB2 for z/OS v8, Oracle 9iR2, Oracle 10g
zLinux 64 bit	zSeries	SUSE Linux Enterprise Server 9	IBM DB2 8 for z/OS

IBM Identity Resolution supports a wide variety of operating systems and databases.

#### **Full-Attribution Data Model**

Identity Resolution supports EVERY version of the truth about individual identities rather than the conventional single view. This is possible because all records are retained separately in Identity Resolution, allowing it to support multiple views of an individual.

Most systems retain only the "best" or most recent name, address, or account information. This practice results in serious data survivorship issues. Valuable customer history may be lost or overwritten. To solve this problem, Identity Resolution supports full data attribution, which means that every name, address, identifying number, etc. is retained with a pure reference to each data source. Full attribution substantially enhances resolution accuracy and enables Identity Resolution to be completely reconcilable to source systems. Of similar significance, full attribution eliminates the need for the repository to be completely refreshed from time to time, a serious yet common limitation of other repositories.

By maintaining the full attribution of each data element, "the pedigree" the system is able to conjoin or disjoin identities automatically as new information enters the system. The system also maintains an immutable audit trail on data elements enabling analysts to trace each piece of data back to the source system from which it came.

#### Sequence Neutrality

Full attribution also allows the system to become sequence neutral, i.e. it does not matter in which order information arrives; the end result is always the same. If the system determines two people are one person and later receives data that contradicts this assumption, Identity Resolution will go back and make the necessary adjustments and create two individual identities based on the new data.

#### **Highly Scalable**

Identity Resolution's architecture has been built from the ground-up to support parallelism. Data quality and entity resolution processes are configured as pipelines. Multiple pipelines can be operated on one or multiple systems. Performance is dependent of the underlying system I/O Throughput. This proven architecture has been able to support literally thousands of data sources and in excess of 100,000,000 data source records

# Configurable Publish and Subscribe Tools

Identity Resolution contains configurable tools for subscribing to data from source systems, and for publishing findings to other parts of the enterprise. These tools can read directly from source system databases via triggers, as well as from files or queues. These tools map source system information into XML-formatted messages that are then cleansed and entity resolved. The resulting messages can then be published to any number of subscribers in an XML format. Additionally, Identity Resolution can act as a SOAP-based Web Service to fully enable your enterprise with up-to-thesecond identity information.

## **Configurable Query Tools**

Identity Resolution allows searches through its cleansed pipeline search technology. Cleansed pipeline search allows for the same algorithms that are used during entity resolution to be employed when searching, providing the best results to search requests. The output of these searches is fully configurable, so sensitive information about identities can be automatically removed from search responses. Queries may be performed over a number of protocols, including files, queues, or SOAP-based Web Services. Thus an investigator might suspect someone of potential fraud and set a query (in effect, an alert – for which there are various delivery facilities) to provide an alert if and when that person does anything suspicious.

## **EAS Visualizer**

The Entity Analytic Solutions Visualizer is a robust, cross-platform tool that includes extensive search and report features designed to provide analysts with a comprehensive graphical representation of the information available within an Entity Analytic Solutions database. In addition, it provides the capability for end users to import Universal Message Format (UMF) data into the database via Web Services to increase speed of deployability.

## EAS Console

The EAS Console provides a graphical interface that allows easy interaction with Identity Resolution. It makes configuring and monitoring the system fast and simple.

#### For more information

To learn more about IBM Entity Analytic Solutions products, including Identity Resolution, please visit: **ibm.com/db2/eas** 



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