# IBM DB2® Entity Analytic Solutions on SGI® Altix®

High performance identity and relationship resolution solutions.

Highlights

- Answers the crucial, age-old question of "Who Am I Dealing With?"
- Brings a new level of accuracy and precision to identity recognition.
- Helps organizations solve identity problems common in national security, compliance, fraud detection, customer relationship management (CRM), insider threat detection, and more.
- Delivers high-performance and extreme scalability with SGI's Altix platform and IBM's DB2 UDB database.
- Provides a standards-based solution built on DB2 UDB and SGI's Altix platform, which features the Linux operating system and industry-standard Intel® Itanium® 2 processors.
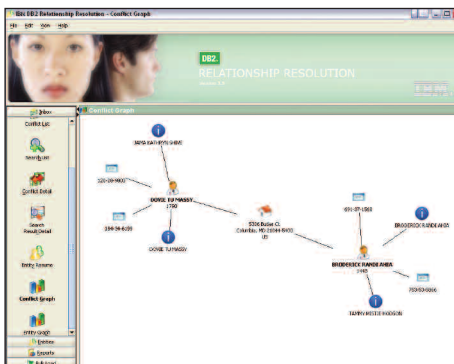
Current identity recognition solutions aren't enough.
Businesses, governments and other organizations today implement many types of solutions to protect their officers, employees, customers, citizens, assets, suppliers, and brands. Some of these solutions screen out undesirable customers or employees through background checks. Often, solutions are installed to detect collusion, fraud, or identity theft. Still others—like customer relationship management (CRM)—promise better relationships, while ID-based security systems safeguard against unlawful systems or physical access. No matter what the specific objective, the primary goal of all these solutions is to understand who—exactly—is on the other side of a transaction.

Your challenge: Understanding who your customers/employees/citizens are and who they are related to, while protecting personal privacy and remaining compliant with governmental regulations.

Your solution: IBM DB2 Entity Analytic Solutions products on SGI Altix

Ready for
IBM DB2®
software for Linux

Who are we really dealing with?
IBM DB2 Entity Analytic Solutions (EAS) on SGI Altix brings a new level of accuracy, precision, and fidelity to the concept of identity recognition. EAS extends identity profiles beyond 360° to encompass non-obvious relationships, dramatically extending the capabilities of identity-based applications and offering an enhanced level of due diligence and security. Other solutions do not resolve individual identities with the same depth and degree of accuracy. Nor do they manage identities in real-time as new information is received, or include the impact of both obvious and non-obvious relationships. No other technology can enable anonymous data sharing to protect both privacy and security.

DB2 Identity Resolution – "Who is Who?"
IBM DB2 Identity Resolution on SGI Altix is an enabling technology that helps any organization solve business and security problems related to recognizing true identity. Identity Resolution answers the question "Who is Who?" The Identity Resolution process determines whether multiple records, which appear to describe different individuals or organizations, are actually records for a single resolved identity, even with different name variations.

DB2 Relationship Resolution – "Who Knows Who?"
DB2 Relationship Resolution on SGI Altix extends the value of existing identity information to include "Who Knows Who?" It begins where most solutions leave off, extending a resolved identity to identify and include the non-obvious relationships among individuals and organizations. This unique capability enables an organization to look beyond the bounds of data directly attributable to an individual to see their "network value" or "network threat." Relationship Resolution seeks out and integrates non-obvious relationships between customers, employees, vendors, and any internal and external source to determine potential value or potential danger - even if an individual is trying to hide or disguise their identity.

DB2 Anonymous Resolution – "Who is Who & Who Knows Who...Anonymously?"
DB2 Anonymous Resolution on SGI Altix allows organizations to share data anonymously to maximize the value of information - without compromising intellectual property or security - by transforming clear text information into an indecipherable,

irreversible format using industry standard one-way hashing algorithms. Once the transformed data is shared, identities are resolved and relationships are identified. Real-time alerts are then issued and sent to appropriate parties. Anonymous Resolution enables an organization to compare customer lists with partners, cross-reference identity records with watch lists, and determine the amount of customer overlap in a merger and acquisition process - and to do so anonymously. This allows organizations to share only pertinent data with an enhanced level of security and privacy.

Industry Applications

IBM DB2 Entity Analytic Solutions on SGI Altix are critical for any organization trying to solve business problems related to recognizing true identity. EAS has application in a multitude of industries, but the primary focus at this time is on governmental entities, life sciences, financial services, insurance, retail, hospitality, and healthcare. Organizations in these and other industries are able to use EAS technology on SGI Altix to help solve some of their greatest concerns, including but not limited to:

- Homeland Security
- Compliance (anti money laundering, consumer privacy/opt-out)
- Fraud (insurance fraud & collusion)
- CRM (enhanced customer data integration, customer value networks)
- Enhanced Due Diligence (mergers & acquisitions, data sharing)
- Insider Threat (employee screening, vendor screening)

Entity Analytics technology optimized on SGI

IBM DB2 Entity Resolution solutions using IBM DB2 Universal Database are perfectly suited for the SGI Altix platform, which is based on the Linux® operating system and industry-standard 64bit Intel® Itanium® 2 processors.

IBM DB2 Entity Resolution technology requires a highly scalable platform for fast data ingest with alerts, and a database repository that can process billions of records within a time-critical window of opportunity. IBM DB2 UDB handles the Entity Resolution data repository requirements extremely well, and offers excellent scalability on the SGI Altix NUMAflex™ system. The Altix architecture provides the scalability and flexibility to deliver very high performance with EAS solutions. Altix delivers incredible scalability of CPUs, shared memory, and I/O bandwidth, enabling efficient system load-balancing between multiple ingest pipelines and the database server. In addition, IBM DB2 Universal Database and SGI Altix can be tuned and optimized for the database and workload characteristics of Entity Analytics.

Combined strengths: Entity Analytic Solutions products on SGI Altix

Entity Analytic products demand a database host with extreme scalability in every dimension (CPU, memory, and I/O) and a database management system that can take full advantage of this scalability. SGI Altix can grow to 512 processors and 24TB of memory in a single image of the Linux operating system, while IBM DB2 Universal Database can leverage all available system resources to manage even the most demanding database workloads. This combination of extreme scalability with an open-standards hardware platform and a best-of-breed database management system provides an extremely capable and extensible Entity Analytic solution.

For More Information

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