Transforming Big Data into Practical Information

CR-X®

BIG DATA integration

Data transformation to drive better business

The CR-X engine is the hub for future-focused, data-driven organizations – capable of processing over 100,000 mixed format records per second, per core. CR-X is recognized as the world's fastest data integration engine.

CR-X is easily scalable – just add more cores or more CPUs to distribute your processing to achieve even faster throughput. This reliable, scalable technology guarantees real-time access to information providing insights most relevant to your business. What really sets CR-X apart is how it cost-effectively manages data transformations. This is the reason why leading telecommunications, finance, health, utility and transport industries consider CR-X to be the change maker in Big Data integration.

Effortless integration of big data in real-time

CR-X collects, transforms and then transports massive volumes of enterprise data in real-time, into down-stream applications, data repositories, analytics engines and visualization tools.

CR-X Core Strengths

1. Unique in-memory streaming technology
2. No underlying database is required
3. Performs at extreme speed
4. Accesses your data directly (no pre-processing required)
5. Runs on affordable commodity hardware and operating systems
6. Easily scalable technology - just add more cores and CPUs
7. Deciphers non-conventional data format (e.g. ASN-1, HL7, HTML, HTTP(S), XML, Binary, BCD, EBCDIC, UTF 8, 16, 32, Unicode and Zip)
8. Intuitive graphical user interface
9. Self documenting, embedded project management, version control, self-contained job scheduler and run time statistics with audit trails

Where and when to use CR-X

The flexible structure of CR-X allows it to be effectively and competitively applied to a diverse range of tasks:

Data Migration

The purpose of data migration is to transfer existing data to a new environment. It needs to be transformed to a format suitable for the new system, while preserving the information present in the old system. CR-X acts as middleware continuing to supply the old system and at the same time transforming data for the new system. When the time is right, the old feeds can be switched off with no impact to the new system.

Data Synchronization

The purpose of data synchronization is to maintain the consistency of data contained in several applications, databases or systems. Many cases exist in information systems where data is managed separately by multiple applications or databases. The need for data synchronization can either be permanent (synchronization between operational systems), or temporary (for example during a migration). CR-X can be located early in the data stream to ensure all downstream systems receive their data to meet deadlines.

Data Matching

Information matching generally involves the comparison of one set of records with one or more other sets, to find records in both (or multiple) sets of data that belong to the same entity. An example of this process is common in fraud detection. To undertake this activity, an intrinsic capability is extraordinarily fast analysis of all the relationships, not just samples – harvesting multiple, disparate data feeds, from unrelated data sources and using them during the matching process. CR-X attributes include high transaction processing speeds with simultaneous real-time disparate data handling.

Data Transformation

CR-X is an ideal substitute for redundant integration processes such as ETL (Extract, Transform, Load), ELT (Extract, Load, Transform) and bespoke scripts. These tools used to be critical components in Data Warehousing and Business Intelligence infrastructure. With the advent of NoSQL database systems users of BI platforms and operational reporting systems no longer require the inefficient and expensive overheads of ETL and ELT systems. CR-X works reliably and efficiently in the background to support the requirements of all batch and just in time reporting tools.

Platform for building applications

Use CR-X to create applications, which rely on high volume and high velocity business models. These include operational business intelligence, real-time dashboards, middleware message broking and complex event processing. With CR-X you can develop customer experience and management systems (CEA & CEM) that include clickstream and advanced web usage analysis. Using it's extreme speed and data ingest capacity, CR-X can perform network management, deep packet inspection (DPI), rating, billing, fraud detection and revenue assurance.

CR-X Architecture

Originally designed to manage and transform the high volumes of raw data coming from switches and other network infrastructure in the telecommunications sector, CR-X is extremely robust and stable.

CR-X has been adapted to handle Enterprise Big Data, and naturally lends itself handling the massive volumes of data found in every-day business applications across a multitude of industries.

The CR-X designer studio: allows creation or modification of CR-X projects.

The toolkit has a point and click, graphical interface that allows rapid development of data integration applications. Data definitions are described or imported. Then task and record steps are added which drive the transformation and business rule adoption. What can take weeks with conventional scripting languages, SQL statements and ETL tools, takes just days with CR-X. Finally the scheduler binds the data and business rules to the targeted environment.

The CR-X Streaming Transformation Engine (STE™): Once the project has been developed and validated it is ready to be launched by the STE™ which collects and streams multiple disparate sources of data through its real-time processor to multiple downstream applications, alerts and repositories.

The engine scales horizontally and vertically and can distribute workload across network connected systems, irrespective of host operating systems.

Integrated Support Services

To make the most of the unique capabilities of CR-X, we offer outstanding additional delivery and support services. CR-X and its partners have developed and deployed applications using the studio and STE ™.

Our accredited systems integration partners and our own data integration experts can be involved in every phase of development, deployment and ongoing support.

The services available include:
- Initial discovery, requirements definition and scoping
- Solution design and architecture
- Installation and integration
- Deployment selection in either cloud or on premise
- Training both for developers and internal support
- Tailored on-going support and maintenance plans

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