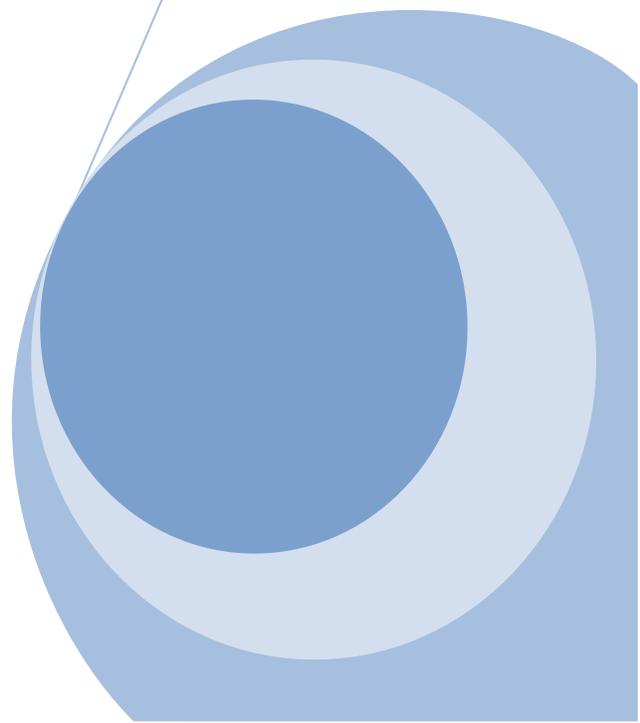


EW Solutions Enterprise Data Management Assessment Case Study

Assessing all aspects of Enterprise Data Management, focusing on data architecture and integration

Enterprise data management, data architecture, data integration, metadata management, and data governance current state assessment and future state business goals drive oldest Canadian rail operator.

EW Solutions, Inc.
4/24/2017



Enterprise Data Management Assessment: A Case Study in EWSolutions Supporting Transportation Improving its Information Capabilities

CN (Canadian National Rail) is a leader in the North American rail industry. The company with its headquarters in Montreal, Quebec, offers rail-based freight transportation and distribution services throughout Canada and the United States. CN operates approximately 20,960 route-miles of track in North America, offering rail connections to three (3) coasts. Recently, CN has undergone a major transformation and has become the most efficient Class I railroad on the continent.

CN is Canada's largest railway, in terms of both revenue and the physical size of its rail network, and is Canada's only transcontinental railway company, spanning Canada from the Atlantic coast in Nova Scotia to the Pacific coast in British Columbia.

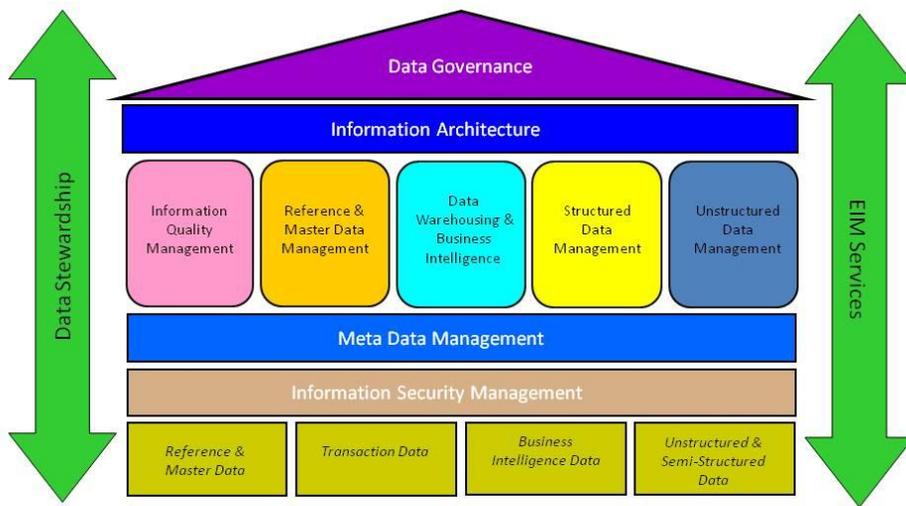
Operating rail, intermodal, freight, ports, and other assets, CN is one of Canada's largest organizations, with significant holdings in United States' lines. Its needs for data and information are extensive, and continue to grow.



Data architecture and metadata challenges raise need for change

Over the years, CN has operated with a collection of applications and systems that were not integrated and whose metadata was not defined or centralized. Additionally, the company did not focus on the underlying enterprise information management challenges of data architecture, metadata management, data governance, master and reference data management that would enable CN to take full advantage of the data and information it collected from its activities in collecting, moving, and storing freight and other railway operations.

CN retained industry leader [EWSolutions](http://www.ewsolutions.com) and used its expert consultants to perform a complete enterprise data management assessment. [EWSolutions'](http://www.ewsolutions.com) team of experienced top-level strategists was able to provide the company with exemplary advice, guidance, planning and execution strategies and recommendations for improvement in all areas of enterprise data / information management, with a focus on data governance, metadata management, data architecture, data integration, and master / reference data management.



[EWSolutions'](#) consultants brought outstanding credentials and dedication to the partnership while also offering:

- Exceptional experience in all areas of enterprise data management assessment, data architecture, project management and metadata management
- Sophisticated interpersonal communication skill for delivering knowledge transfer
- Thorough understanding of enterprise data management best practices and industry standards, especially in the areas of data management strategy, data architecture, metadata management, data governance program development, and the project management in these areas
- The invaluable ability to view technology from the business person's perspective

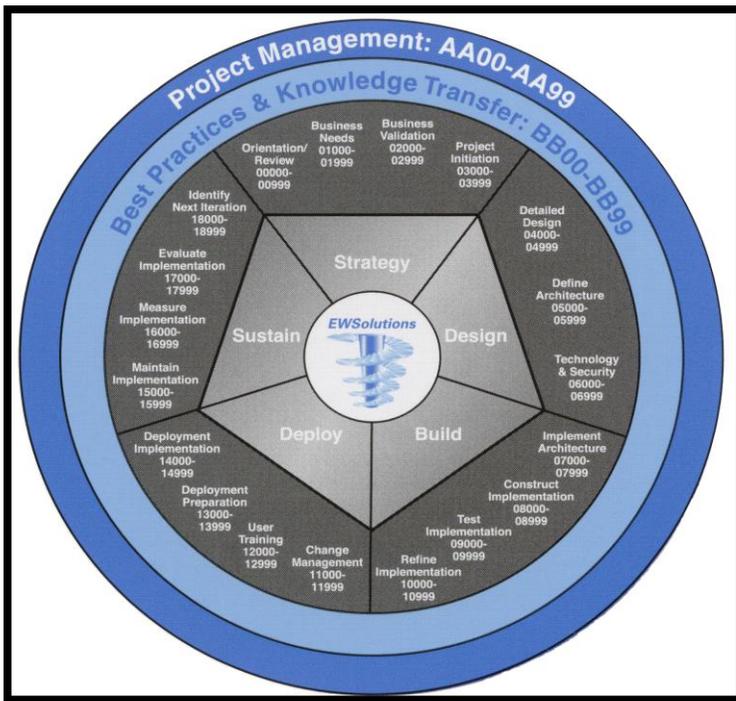
With the superior guidance of [EWSolutions](#) in enterprise data management assessment, with clearly defined recommendations for improvement and a series of phased implementation roadmaps, CN was able to plan its new approach to enterprise data management confidently with these clearly defined goals:

1. Plan for improving data management strategy and implement the plan
2. Establish the foundations of enterprise data architecture
3. Establish a best practices-based data governance program
4. Improve the current state of metadata management, especially business metadata management
5. Develop a plan for action for improved master and reference data management

Additionally, [EWSolutions](#) used its industry leading [M3sm](#) methodology for metadata management on this engagement. The results of this methodology implementation included:

- Analysis of [M3sm](#) against current CN metadata management practices
- Assessment of gaps between CN practices and industry proven practices in [M3sm](#)
- Incorporation of [M3sm](#) stages, phases, activities, templates into CN's metadata approach
- Expert guidance for blending [M3sm](#) and CN approaches into a unified method

Methodologies enable more rapid assessment, development and implementation through best practices



EWSolutions’ M3sm methodology for Metadata Management is a highly customizable, iterative, and workflow-oriented methodology designed to help your organization achieve enterprise metadata management success effectively. With hundreds of fine-grained tasks with clear objectives, success factors, and responsible parties identified, **M3sm** enables the development of a managed metadata environment with the proper processes, people, and technologies.

The methodology is based on **EWSolutions’** consultants many years of helping clients successfully realize outstanding benefit from their metadata management efforts. **M3sm** underscores **EWSolutions’** numerous award-winning efforts and thought-leading practices and supports integration with Enterprise Information Management (EIM), data governance, and data warehouse / business intelligence (DW/BI) efforts. **M3sm** is a self-sustaining, iterative, and customizable methodology that helps organizations to realize continuous return on investment (ROI) by identifying new business opportunities, improving efficiencies, and increased data quality through a metadata management program.

Methodology Critical Points:

With highly customizable task narratives, templates, and examples, **M3sm** allows any organization to fit the methodology to its efforts, not the other way around. The methodology adds value to a metadata program without adding unnecessary complexity or unjustified efforts.

An iterative methodology with overlapping phases and activities, **M3sm** helps an organization anticipate and reduce risks within and across phases, providing strong validation of scope and results, while efficiently utilizing all resources, including time, personnel, funds, and effort.

The **M3sm** workflow provides discipline and manageability to any metadata management program. Developing a managed metadata environment can be very complex – using the **M3sm** methodology breaks the effort into manageable, measurable tasks to know the current state, target state, and next steps. With its clear success criteria and best-practice estimates, the methodology helps an organization achieve discipline and increase visibility to assess progress and identify needed adjustments efficiently and effectively.

Assessment, Roadmaps, Implementation Support Provide Foundations for Growth

CN's senior business community leadership responded favorably to the assessment and roadmaps provided by [EWSolutions](#), especially the personal involvement of EWSolutions' president, David Marco. Capabilities for data management were raised significantly at various levels and the organization continues on its enterprise data management foundational development paths.

EWSolutions Overview

EWSolutions is comprised of superior strategic and tactical planning analysts who offer government and commercial clients innovative and authoritative solutions to assist with assessments / strategies in all areas of enterprise data / information management, technology implementation in metadata management, data warehousing (ETL, BI, data and text mining, etc.), business intelligence implementation, data governance program development and implementation, enterprise data management framework development and implementation, data migration planning, disaster and contingency planning, and strategic solutions for business/technology issues. The company's extensive client base spans the government and the health, life sciences, insurance, financial services, consumer products, retail, manufacturing and high-tech industries. For more information on our strategic consulting services, high-value implementation services, methodologies, or world-class training call (630) 920-0005 or email us at Info@EWSolutions.com