

WHITE PAPER: EDM CONSIDERATIONS FOR A SUCCESSFUL ACQUISITION INTEGRATION



INTRODUCTION

Just when you were feeling good about the progress of your Enterprise Data Management (EDM) and/or Business Intelligence (BI) program, you hear that your organization has just completed an acquisition and you need to integrate them into your organization. For most EDM/BI leaders, the lifecycle of emotions after hearing the news is: excitement > fear > anxiety > confusion > excitement. These emotions are fed by questions that include, but are not limited to:

- Who will lead the program of the combined organization?
- Which roles will become redundant?
- How will we integrate all the data?
- Whose data warehouse will survive?
- Will we have access to new software licenses?
- How will we get all the work done given the existing projects and priorities?

Merging two organizations takes time and the emotions of the EDM/BI team members will be high. There will be a strong sense of pride for what's been implemented and a great sense of concern for their roles, for both organizations.

When acquiring a company, the natural tendency for EDM/BI programs from the acquiring organization is to want to start merging the data, replacing reports, shutting down ETL jobs and decommissioning redundant tools as quickly as possible.

However, as organizations quickly learn, there is a significant amount of discovery and planning that will be required to ensure a successful merging of systems, data, programs, and analytic assets. In addition, there is significant work upstream from the EDM/BI program that will need to be completed.

Given the scope and dependencies, it's best to develop a comprehensive plan that can be prioritized and estimated. That plan should include:

- Evaluating the existing EDM/BI program and analytic capabilities of the acquired organization
- Working with IT to create process maps to understand the business processes and how they are similar or different from the acquiring company
- Creating an inventory of the data assets and software assets
- Establishing the technical direction
- Creating a roadmap that can be communicated across both organizations
- Developing a continuity plan to ensure that the data and analytic needs are met throughout the integration

This work will take time but can be completed in parallel with the upstream activities. During this time, redundant applications will remain active until they can be replaced. Critical decisions will need to be made regarding the source systems which will have a profound effect on the downstream consumers, such as BI, B2B integration, and application integration. In fewer cases, the source systems from both organizations will remain, but it's more often the case that applications will be retired from one, or even both organizations and a new one implemented. Some of these considerations may seem more environmental of business process but they do have an impact on what must happen with the data. Many of the points have reference to systems and applications in both companies not just one or the other.

The remainder of this paper focuses on the activities that will be required to ensure a successful integration.



EVALUATE EXISTING EDM/BI PROGRAMS

One of the first steps for an EDM/BI leader is to assess the existing state of the EDM/BI programs at both organizations. Understand and evaluate what makes the programs successful and areas for improvement. What are the goals of each program? What areas of EDM are being actively managed, where do they reside organizationally, and what's the maturity level? Consider the delivery capabilities of each and determine if there is a consistent delivery methodology and if standards are being followed. In addition to the objective analysis, also determine peoples' perceptions across the organization about the EDM/BI program. An efficient method for gathering this subjective feedback is through an anonymous survey.

The resources that support the delivery should also be evaluated to determine if the key personnel are knowledgeable and already in place, if there are any redundant roles, and if there are any people that will make the overall acquisition process difficult.

Along those same lines, from a user perspective you'll need to evaluate:

- What the user base is for these programs?
- How many end users are supported?
- What is the stratification of that user base?
- What do these users think of the existing program in terms of delivery capabilities, data quality, coverage, responsiveness, and value?

Understanding the user experience and areas of improvement will help ensure a smoother transition.

An additional area to review when evaluating the existing program is to consider the budget and what is currently spent on an annual basis. This will anticipate what funding may be required and help with budgeting going forward. Also, take note of any existing data governance and data quality programs that may support the EDM/BI programs. Will there be an impact if data governance or data quality isn't in place in one organization but it is in the other? Would there be value in having certain data governance or data quality capabilities in place?

With an understanding of the current EDM/BI programs, you will have a high-level comprehension as to what can be leveraged and what can be changed to ensure a successful EDM/BI program after the organizations have assimilated.



PARTICIPATE IN THE DEVELOPMENT OF PROCESS MAPS

The need to understand the business processes in the organization is a key component to a successful acquisition. Developing a process map - an integrated process understanding between 2 entities - is critical to understanding the landscape of all the systems, and organizational and process impacts. The entities are defined with alignment on common terms and definitions and the data, systems, and people that support the processes are documented. This information can then be leveraged to determine if a single integrated process can be defined.

The business process hierarchy is also defined to provide a framework of key

business functions. For example, a business process of “Order to Cash” may exist and a sub-process of the Order to Cash business process may also exist. When defining the business process hierarchy, it is best practice to uniquely identify each process level within the identifier. Looking at “Order to Cash”, an identifier for a sub-process of a three-level hierarchy could be “2.7.3” where “2” is the identifier of the top process level, Order to Cash, “2.7” is the 7th process of a sub-process level under Order to Cash, etc. Having the hierarchy identified using this nomenclature will allow quick identification of the business process and sub-processes.

While understanding the business processes, it is also important to know any regulatory or compliance requirements that need to be adhered to. Is there a need to report on specific datasets or keep datasets for a specific amount of time? What impact, if any, is there to the business processes?

The business processes often drive the requirements for deliverables in an EDM/BI program. With the process maps clearly defined, an organization will be well prepared to deliver on these business needs without impacting the current environment as it works on the acquisition.

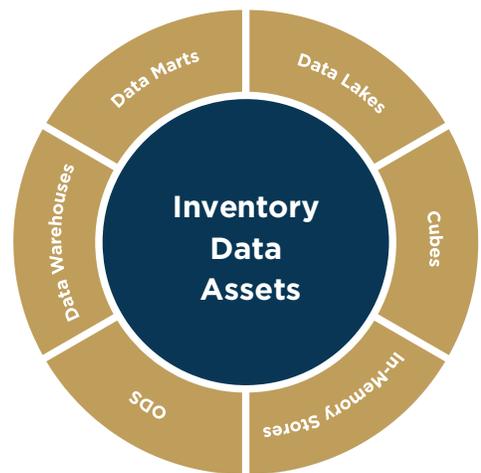


INVENTORY DATA ASSETS

Data is often an organization’s biggest asset and it is imperative that these data assets are identified early on during an acquisition. These data assets may include operational data stores (ODS), data warehouses, data marts, data lakes, cubes, and in-memory stores.

Leveraging existing data models for comparison can significantly save time and effort, but if these are not available, an inventory of the systems and attributes of the acquired organization must be documented and compared to the acquiring organization’s systems and attributes for any overlaps.

Opportunities are then more easily identified to eliminate redundancies in both data and data processing.



During this data asset inventory, scope will initially focus on the major and important systems used by each company to perform essential business functions.

The inventory captures the following details about each system:

- Succinct description of the system and what it is used for
- Type of data contained in and maintained in the system
- Business owner
- Technical contact
- Business criticality (High, Medium, Low)
- Environment information such as OS, database, geographic location, number of users, operating window (time of operation), vendor, version, etc.
- Supported business processes (mapping to the business process hierarchy)
- Supported business functions

Along with the inventory, a classification scheme is defined to identify types of data to a level that is not too specific and not too general. At this stage, data should not be defined at the attribute level, e.g. Product Number, Warranty Period, Customer Country Code and should not be dealt with at too high of a level, e.g. Product, Warranty, Customer, etc. Some examples of a good level of classification is Product Hierarchy, Marketing Product, Engineering Product, Warranty Claim, Warranty Charges and Customer Demographics.

The current flow of data between major and important systems are also documented as part of the data asset inventory. Think about what types of data flow from one system to another. Data classification is very helpful in this situation to understand, for example, how a product hierarchy is built.



Consider what data flows from/to a system to support each of the business processes previously defined in the process maps. A single system can be used to support many business processes so it is important to know where the data flows to/from in an organization.

The data flow documentation also includes the protocols and/or technology used to perform the data flow, (e.g. sftp, service bus, direct access, etc.), the frequency of the flow (e.g. hourly, daily at 9PM, weekly on Saturdays, monthly, real-time, etc.), and the size or volume of the data that flows.

A general understanding of the more important downstream systems and applications that receives data from existing major or important business systems are also documented. This consideration assumes that any system/application that maintains data and provides the data to a major or important business system has already been defined as a major or important business system. Document how data will be made available to more important downstream systems/applications with the new merged landscape.



INVENTORY SOFTWARE ASSETS

With the data asset inventory completed, the software assets are also identified. An inventory of BI software tools will list any data modeling, extraction-transformation-loading (ETL), data quality (DQ), data virtualization (DV), master data management (MDM), test data management (TDM), messaging, portals, front-end BI, and data governance tools. The software version, support contract details and annual maintenance costs, and contact information are typically documented for each tool. With this inventory, any redundant software tools can be readily identified and any existing partnerships may be leveraged immediately to save on costs.

Along with the software inventory, existing third-party vendors or partnerships are also identified to determine if any data is being enriched by a third-party source in the organization or if data is being shared with another partner. Understanding these data enrichment sources can also save on costs if this data set is no longer needed or can be supplied by data from the acquired organization.



ESTABLISH THE OVERALL TECHNICAL DIRECTION

The foundation for a successful acquisition is now in place with the understanding and documentation of the overall EDM/BI program, business processes, data asset inventory, and software asset inventory.

With this knowledge, the overall technical direction is well-defined. Decisions can now be made on determining what major applications will be used for the merged company as well as any new applications or systems needed that currently don't exist in either organization.

The data required and what needs to be merged and loaded in the new applications/ systems is also identified. To ensure a successful acquisition, it is best practice to simplify the enterprise technology by reducing the number of technology dependencies within the overall enterprise. This reduces the complexity of systems as well as the support requirements, the number of vendor relationships, and the overall cost.



EDM/BI PROGRAM



BUSINESS PROCESSES



DATA ASSET INVENTORY



SOFTWARE ASSET INVENTORY



CREATE THE GO-FORWARD ROADMAP

Creating a high-level enterprise system roadmap for data migrations, conversions or re-platforming of major systems is essential in a successful integration. An effective roadmap will be developed at the quarter, half-year, or year level depending on the complexity and size of the merger. It is important to note that roadmap development is an iterative process. The goal of the roadmap is to lay out a high-level plan to get a more streamlined future state for all systems by reviewing opportunities to simplify technology, decommission old systems, and source enterprise systems.

The roadmap will include the steps mentioned earlier (assessing the current state of existing systems by evaluating the EDM/BI programs, process mapping, inventorying data and software assets) along with specifics on when data will be migrated or converted, and decommissioning old enterprise systems.



The disposition of the data in each of the affected systems is also determined as part of the go-forward plans. With the data classified during the data asset inventory, it is easier to determine what is done with historical data.

Does it need to be retained in the current system? Does it need to be converted and loaded into another system? How much of the data, if any at all, need to be involved in a data conversion or migration? Can the data be ignored going forward? Do certain types of data in the same system need to be treated differently; does some of it need to be retained, some migrated, or some purged? If a data conversion or migration is required, the roadmap should address the additional time and effort needed for data quality. The integrity of the data is important and data quality techniques like cleansing, standardization, and de-duplication are implemented to ensure that the data can be trusted going forward.

While it may not seem important to decommission old systems, this is a key step in an acquisition or merger to save on costs and reduce complexity in the overall architecture. Without these legacy systems, the enterprise will have clearer processes and end user adoption is more likely to occur.



DEVELOP A CONTINUITY PLAN

An acquisition or merger doesn't happen overnight and business will still need to run as usual while the roadmap is being implemented and systems are integrated. A business data continuity plan is developed to assure there isn't a negative impact to the business. The plan ensures that as systems are integrated, data remains "whole" and can be reported accurately, so that day-to-day operations can continue to be supported as well as reporting across the two entities while transitioning to the future landscape. The plan will also determine the impact on other major and important systems as well as more important downstream systems/applications as the new system landscape is rolled out. The plan will consider the testing of the new system landscape verifying that it meets the requirements and supports the business going forward.



CONCLUSION

Ultimately, the success of an acquisition from an EDM standpoint will depend on patience, compassion, communication, support, continuity and planning. Merging two organizations takes time and the emotions of the EDM/BI team members will be high. There will be a strong sense of pride for what's been implemented and there will be a great sense of concern for their roles, for both organizations. While this can't be avoided, it can be mitigated with consistent and constant communication, as well as transparency and a well-crafted, and executed plan.

ABOUT THE AUTHORS

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Steve Dine is the president and founder of Datasource Consulting. He has extensive experience delivering and managing successful, highly scalable and maintainable data-integration and business-intelligence solutions. He helps companies design and implement BI architectures that align to the unique requirements of each individual organization. Steve combines hands-on technical experience across the entire BI project life cycle with strong business acumen. He is the former Director of Global Data Warehousing for a major durable medical equipment manufacturing company and is currently a founding member of the BI Boulder Brain Trust, a faculty member at The Data Warehouse Institute, and a judge for the Annual TDWI Best Practices Awards. He teaches courses and presents on the topics of Lean BI, BI in the Cloud, and Enabling BI for the 21st Century.

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DeVon Doman has 30 years of experience as a technical consulting professional, with an expertise in enterprise-level IT strategy, Master Planning, Data Architecture, Master Data Management, Data Integration, Data Warehousing, Metadata Management, Reporting, and Data Modeling. His experience spans all phases of the project lifecycle for large global corporations. DeVon utilizes strong analytical skills and thought leadership to translate business needs into technical solutions and is adept at quickly learning and applying industry and company-specific concepts to Business Intelligence projects.

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Sally has more than 14 years of data integration, data warehousing, data quality, data governance, and business intelligence experience. She is an expert level data quality and data integration developer and administrator with experience in both architecture and implementation of data quality, data governance, and data integration solutions. Sally has provided strategic and tactical leadership to many data warehouse projects with experience in implementing and supporting commercial/financial/product complaint data warehouses, data quality, and data governance programs in the biotech/pharmaceutical/financial industries. Her experience includes full life cycle development from requirements gathering through the maintenance phase.

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Chun is a dedicated and experienced EDM Solution Architect who has designed, architected, and implemented multiple large scale enterprise data warehouses, real-time integration architectures, cloud solutions and BI projects. He has worked on

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