WhamTech Mergers and Acquisitions (M&A) Tool
Revision 1.1

Contents

Introduction

M&A and divestiture (collectively, M&A) activity is driven by a need to preserve or create value, however that is measured: e.g., increased top-line revenue, increased bottom-line profit, company valuation, etc. Regardless of the values being pursued, the key to realizing the value of M&A and any business activity are the successful integration of people, processes and technologies. M&A is different from normal business activities in that it is a sudden change to these three components vs. continuous improvement. Correctly estimating the value of, preparing for and implementing the M&A activity can be greatly eased by having the right tools available.

WhamTech, Inc. ("WhamTech") is a software company that develops indexed adapter-based distributed virtual data management, master data management, analytics and security products. These products, collectively known as SmartData Fabric®, allow access to data wherever it resides, including in its original source and format, through data virtualization, federation, integration and interoperability. In addition, the indexing process and the indexes themselves provide information and capabilities beyond basic data access that allow data to be managed virtually from discovery through insight. SmartData Fabric® has standard drivers, REST APIs/Web services, SQL and other query language processing, and can be used by standard applications for reporting, BI, analytics, CRM, etc.

WhamTech is seeking partners to collaborate on the development of a mergers and acquisitions tool (M&A Tool). Ideally, such a tool could be demonstrated internally on one or more M&A projects, where benefits could be documented and quantified. Once demonstrated internally, it could be packaged for use externally as a product and service offering on the Cloud, on-premise or Hybrid Cloud, for pre-M&A/due diligence, short-term post-M&A and longer-term post-M&A.

Value Proposition of the M&A Tool

Primary Values

1. Rapidly gain insight and deep understanding of the enterprise by accelerating production of reports, BI dashboards and actionable analytics.
2. Generate an enterprise-wide virtual standard data view that can be accessed as if a single standards-based database, e.g., ODBC, JDBC, REST APIs and SQL. Option to display as a visually interactive graph database.
3. Support single patient/customer and other master data views of enterprise data, the relationships among data/entities and enable standard applications/workflows to leverage these views.
4. Identify devices, data sources, data and entities, and provide tools to govern these data assets throughout the enterprise.
5. Develop business models to compare the actual vs. estimated impact of a M&A or divestiture activity.
6. Provide a platform that makes the enterprise more agile in operations and flexible in addressing the everchanging landscape, including regulatory compliance.
7. Operate with relatively low cost.
8. Scale without compromising performance.

Secondary Values

9. Deploy on the Cloud, on-premise (possibly as a Private Cloud) or both as a Hybrid Cloud 1.0 (Private Cloud on-premise) or Hybrid Cloud 2.0 (on-premise data sources accessed from the Cloud).
10. Minimally intrusive and leverages existing IT systems, with minimal disruptive load on existing systems.
11. Generate and maintain, and/or leverage existing metadata repository, data governance, ETL and master data management systems.
12. Retain the M&A Tool for longer term operations, e.g., leverage investment in existing systems and integrate with other/new systems. Develop single data views across all systems.
13. Enable almost any application to be interoperable with almost any data source or sources.
14. Optional email communication analysis with virtual graph database, and match to organization diagram – reveals many insights.

Introduction to WhamTech SmartData Fabric®

WhamTech SmartData Fabric® **provides a lightweight, new and unique approach to, or complements existing, data management and master data management (MDM) strategies**. Is it disruptive? Yes, but only in the most positive way by streamlining existing efforts, protecting current investments and initiatives, and accelerating the efforts associated with reporting, business intelligence (BI) and analytics. SmartData Fabric® easily plugs-and-plays into existing IT architectures, complements and leverages existing IT systems, tools, and applications. SmartData Fabric® solutions are especially useful to existing data integration efforts by allowing the client to avoid the traditional ETL approach. SmartData Fabric® uses standard drivers, APIs, Web services and familiar query languages, e.g. SQL, basic PL SQL and others. Many conventional data management and MDM approaches are slower, more expensive, and far more difficult than this novel approach. SmartData Fabric® addresses data management at the source, before any queries are executed and results obtained, and MDM is not a separate system, but an integral part of data access that allows seamless and automatic integration of master data – applications/users are not aware of its use. SmartData Fabric® can also be distributed and maintained in near real-time. Use of the SmartData Fabric® offers higher ROI, lower TCO, and rapid and incremental implementation. The more data is managed, the more value will be realized. SmartData Fabric® **moves data from discovery to insight quicker than any other approach and after the initial M&A activity, leaves behind an extremely useful integration capability**.
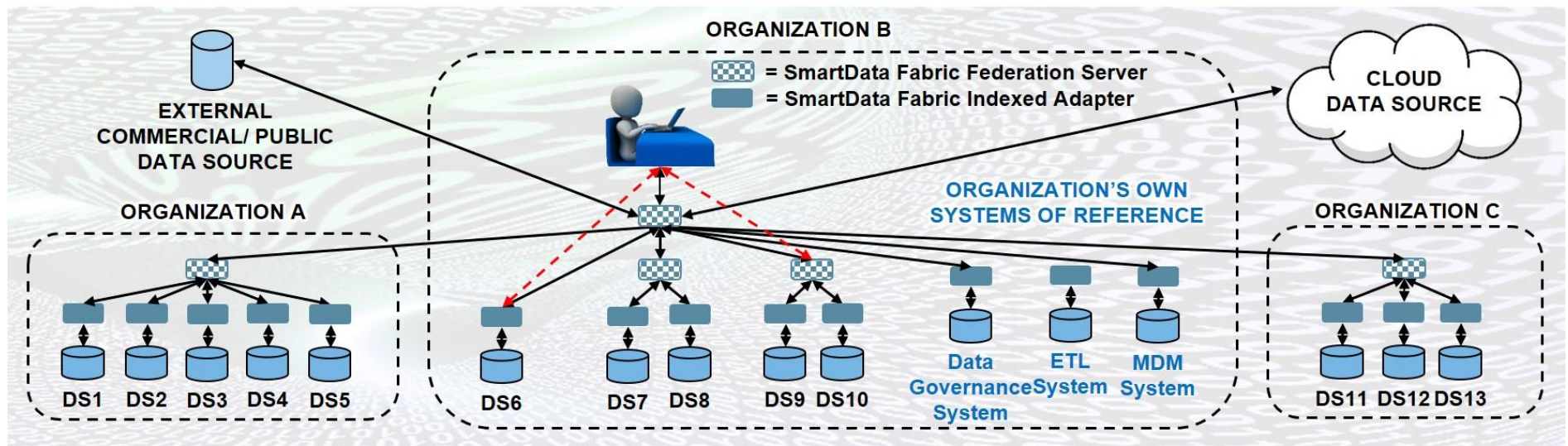
Seven Main Goals of M&A Projects
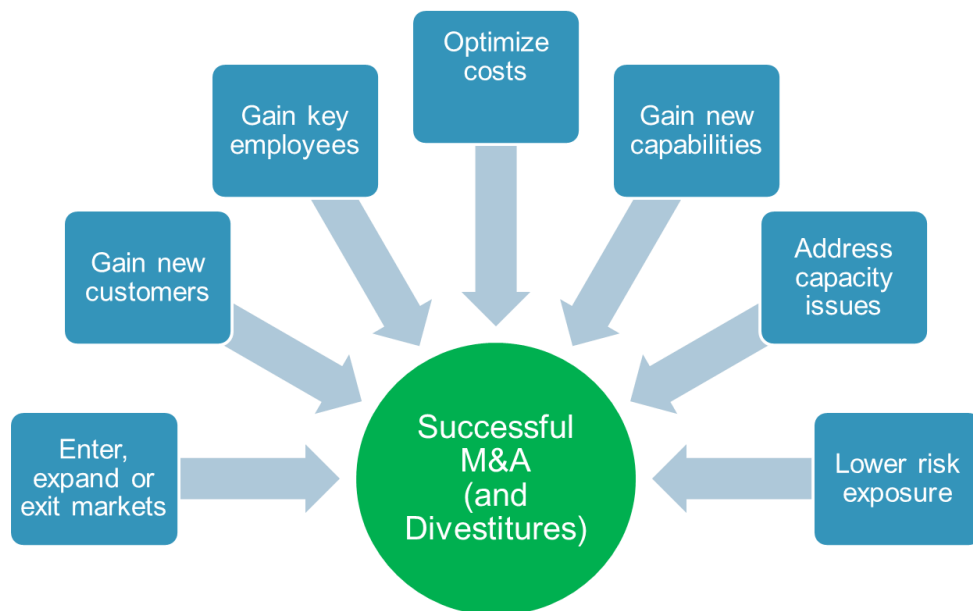
The main goals can vary across industries, but can be exemplified as follows:

1. **Enter, expand or exit markets** – enter new markets, leverage distribution channels, expand the number of customers or patients, offer more services, displace/acquire competitors or components of competitors, exit losing markets or move up the value chain

2. **Gain new customers** – in healthcare, patients (providers) and/or clients (payers)

3. **Gain key employees** – technologists, management and/or sales, or in healthcare, skilled doctors, nurses or technicians

4. **Optimize costs** – economies of scale, leverage procurement channels, reduce combined administration, consolidate suppliers, negotiate better terms and contracts, reduce waste, improve and automate processes, or apply best practices, e.g., optimize processes or reduce fraud/theft

5. **Gain new capabilities** – equipment and types of equipment, technologies, processes, facilities, suppliers or distribution channels

6. **Address capacity issues** - accommodate additional customers, patients and clients, in existing or additional facilities, consolidate resources, divest underperforming assets, or increase utilization of expensive equipment, e.g., in healthcare, MRI machines

7. **Lower risk exposure** – improve cybersecurity, manage information assets more effectively, identify and reduce liabilities, or reduce locations risks
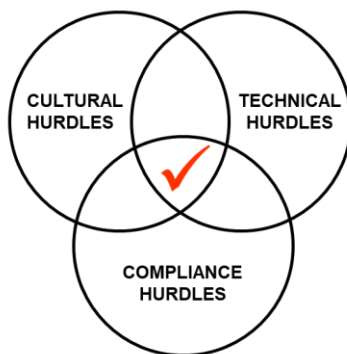
Most M&A Projects Fail

Forbes[i], Harvard Business Review and others estimate that between 70% and 90% of M&A projects fail completely or do not meet original expectations. While almost all failures can be traced back to management in the valuation, pre-merger and post-merger phases, there are three specific hurdles that need to be overcome to avoid failure.

1. Cultural fit

2. IT systems incompatibilities

3. Regulatory compliance

WhamTech provides a strong enabling technology that when combined with effective processes and strong people will lower other hurdles. Successful M&A is all about integration – of employees, systems and reports - maximized value will not be realized unless all three are managed well.

Cultural Hurdles: Good employee retention is a major problem before, during and after a merger[ii]. On average, 30% of employees in a merged company, in the same industry, lose their jobs, retire (forced or otherwise) or leave[iii]. Unfortunately, often the best employees tend to retire or leave, as they have other options, which can greatly reduce the intellectual property and value of the merged company. Factors such as poor management communication, and maintaining morale and productivity are probably the main contributing factors in retaining good employees. Another major factor is rapidly introducing too many changes, such as forcing employees to change familiar processes and tools. An M&A toolkit built on WhamTech's SmartData Fabric® could help reduce the anxiety and demonstrate the value of a merger more quickly.

1. Cultural
2. Technical
3. Compliance

Ideal approach helps lower all hurdles

CULTURAL HURDLES

TECHNICAL HURDLES

COMPLIANCE HURDLES

Technical Hurdles: Typically, for companies to realize the full value of the merger, their IT systems need to be integrated: the quicker, the better. Initially, reports, BI and analytics need to be run, first, to assess the current status, second, to plan future employees, processes and tools integration, and third, to support the planned integration. Many mergers force one of the merged companies to adopt systems used by the other company, typically, the acquiring company. Mergers done without WhamTech's SmartData Fabric® force both merged companies to

adopt systems new to both companies. Traditional transition-migration projects initially cause confusion, technical issues and disillusionment. One of the basic requirements is to obtain single customer/patient and other master views of data that typically exists in diverse multiple systems often within the merged companies, in partner systems and often in third-parties who provide a wide range of services. An M&A toolkit built on WhamTech's SmartData Fabric® could reduce and avoid many of these challenges.

Compliance Hurdles: Apart from the standard corporate Sarbanes-Oxley and Dodd-Frank laws and associated regulations, healthcare and other industries are also faced with additional HIPAA and other compliance, and in many places, GDPR. In healthcare, government reimbursements are becoming increasingly value-based. Regardless of industry and how reimbursement takes place, all companies need access to data in a wide range of locations, and there are usually a myriad regulatory compliance for the new merged company to meet. Most regulatory compliance depends on people, processes and tools (as do most operations) – all of which requires timely access to data, which is a major technical hurdle. An M&A toolkit built on WhamTech's SmartData Fabric® could assist greatly with compliance.

The M&A Tool Focuses on IT Systems Incompatibilities – Overcoming Technical Hurdles

And, by doing so, helps lower the other hurdles.

Guiding Principles

- Deploy a tool that can be used pre-merger, and/or short-term and long-term post-merger

- Provide full virtual data discovery, profiling, mapping, classification, security, cleansing, transformation, standardization (collectively, data quality) and governance, metadata management, query processing, master data management, standard data view mapping, relationship mapping, virtual graph database and virtual link analysis

- Run standard applications, e.g., reporting, BI, analytics, CRM and BPM, using standard driver/Web services access, and SQL and other query languages

- Minimize intrusion and impact on existing IT systems

    - Impose minimal to no load

    - Do not install on existing system

    - Allow operations/transactions to continue without interference

    - Deploy on independent systems, i.e., Cloud-based, independent on-premise systems, or both/hybrid system

- Automate as much as possible – use machine learning and/or rules where available

- Access data wherever it resides – original sources or copies from original sources

- Determine need for updates, e.g., initially, one-time, and subsequently, tend towards near real-time

- Address access security, i.e., Identity Authentication Management (IAM), attribute-level Role-based Access Control (RBAC), leverage Active Directory (AD), row-level security, SSL and audit logs

- Address data security, i.e., data masking, tokenization and encryption, including tokenized encryption, HIPAA and GDPR

Key Differentiators

- Meet M&A Tool Guiding Principles (as listed above)

- Provide a complete set of virtual data discovery and management, master data management, analytics and security tools to address data access, enable standard applications and develop and deploy new workflows, e.g., based on standard such as HL7 and FHIR REST APIs

- Build and maintain data governance, metadata management and master data management from the bottom/edge up

    – Obtain central/higher-level views/reports

    – Update central/higher-level repositories

    – Impose central/higher-level policies

- Adapters to data that are powered by multiple types of indexes and indexed views, and enable processes and drive value, as follows:

    – Pre-process structured data to address data management fundamentals (data is discovered, profiled, mapped, classified, secured, cleansed, transformed, standardized and linked to other data during the indexing process) – normally, DATA DISCARDED/NOT STORED

    – Pre-process unstructured data similar to structured, but apply own and third-party analytics, e.g., entity extraction, categorization/clustering, sentiment analytics and other conversion to structured data, e.g., doctor notes to diagnoses

    – Indexes contain pointers back to data in sources, copies, e.g., in a Data Lake, or stored in indexes

    – Master data management, event processing and other processes are applied after the indexing process

    – Thirteen ways to update indexes, from near real-time to one-time batch – usually depends on data source updates rate

    – Enable high performance, parallel distributed query processing through standard drivers, APIs, Web/data services, SQL and other query languages

    – Indexes and adapters absorb data and query processing load and only access data source systems to obtain raw results data at a low, engine-level

- – Monitor data sources for content and relationships in near real-time, and process events

- – Enable virtual graph database, link analysis and graph/link visualization

- – Seamless and automatic integration of master data with data access – no separate system or application requirements

- – Support Forrester Zero Trust Data Security Model – discover, index, classify and secure

- – Support GDPR requirements

- – Write-back to data sources, e.g., for interoperability, master data updates and deletion, if needed, for GDPR

- Option to pre-deploy in a Data Lake and/or use the Cloud to provision IT resources, and remotely access on-premise systems

- Option to store data in (a) a separate data source, e.g., Big Data Lake, if not already the data source being indexed, (b) unaltered, as per the original data source, in the indexes and/or (c) altered, as cleansed, transformed and standardized

- Runs on 64-bit Windows, Linux or IBM Power systems

Supports pre-M&A consulting, services and planning

- Gain systems, cultural and regulatory insights previously not available or too expensive and time-consuming to obtain

- Gather basic descriptions of known systems

- Prioritize systems, data sources and information to be gleaned

- Work with data source owners to gain understanding, educate, reduce concerns, and learn processes and requirements to gain access

- Select tools to support the pre-merger and post-merger phases

- Consider longer-term post-merger requirements

- Gain insight into post-merger opportunities

Supports post-M&A activities, first 90 days

- Leverage widely-used open source network discovery tool to gain an understanding of devices/servers on the network that contain data sources – also, applications drivers, users, etc. that may be of use

- Discover, profile and match data across multiple disparate data sources using a standard data model to generate a standard data view, e.g., HL7 and FHIR REST APIs simultaneously

- Automate as much as possible – future use of machine learning

- Leverage existing data governance, metadata management, ETL and master data management

- Create or update enterprise-wide distributed data governance, metadata repository and master data management

- Generate indexes and link discovered data, including entities

- Review options for indexes and indexes views, e.g., pre-aggregations, pre-calculations and pre-joins

- Create/adopt and map a standard data view/enterprise information model (EIM)

OUTCOME => An independent virtual data access layer that conforms to an EIM, and enables existing and new applications/workflows

- Generate initial reports and visual representations of information

- Run BI reports/dashboards

- Run consolidated reports

- Review applications and data sources for decision on retain, phase out, replace or transition-migration strategies

- Work with strategic and business decision-makers to identify and prioritize new and existing applications and data sources

OUTCOME => An accelerated overview of the business and lines of business, important clients/patients, products and vendors, and information needed for medium and longer-term strategies

Supports post-M&A activities, post-90 days

- Implement longer-term strategies formulated earlier

- Refine master data views of data for analytics and other uses, e.g., single patient view/longitudinal patient records (LPRs) for pay-for-performance claims processing, care pathways and genomics/precision medicine analytics

- Refine Link Indexes and develop solutions around them, e.g., link analysis, fraud detection, drug use/misuse/loss, liability exposure, compliance and other analytics

- Determine type and level of support for expanding, maintaining and repurposing M&A Tool and other component infrastructure

- Can be sold, leased or offered as data/platform/software as a service (DPSaaS)

- Merge acquired enterprise data and processes with acquirer enterprise's data and processes

OUTCOME => An accelerated strategies implementation to minimize hurdles, maximize in-depth understanding of the combined enterprise, and leverage to meet or exceed merger expectations

About WhamTech, Inc.

WhamTech, Inc. (WhamTech) is a Dallas, Texas-based company whose mission is to develop indexed adapter-based distributed virtual data management, master data management, analytics and security platform software products. WhamTech develops these products to anticipate, meet and exceed the demands of customers seeking an alternative to the conventional approaches of data warehousing, federated data access with conventional adapters, and enterprise search. WhamTech's goal is to provide an improved and more seamless way to work with data, by leaving it in sources and changing the way fundamental and advanced data management is addressed. Most WhamTech adapter products leverage independent, cleansed, transformed and standardized indexes that execute both structured and unstructured queries, and seamlessly and automatically integrate master data management to provide capabilities normally associated with multiple separate solutions, including providing results when data sources are unavailable and for archive.

Information on WhamTech solutions, sales and services, and partnership and investment opportunities can be obtained through www.whamtech.com.

[i] https://www.forbes.com/sites/forbestechcouncil/2017/10/19/the-three-reasons-why-tech-ma-deals-fail-to-deliver-value/

[ii] https://www2.deloitte.com/content/dam/Deloitte/jp/Documents/human-capital/hcm/jp-hcm-hr-retention.pdf

[iii] https://hbr.org/2017/03/surviving-ma