



## Solutions to the Complexity of Pharmaceutical Sales Data Management

A Trinity Partners White Paper



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## Introduction

### How Do You Answer These Questions?

What is our market?

Do we know who our key customers are? Are we reaching them?

How effective is our sales force?

What is our competitive market share?

Having timely, accurate answers to these and related questions is critical to the success of any company. In the data-intense pharmaceutical and biotech industry, such concerns are paramount. Despite the universality of these topics, finding answers is not always easy. For many companies the absence of this information limits sales force effectiveness and hinders strategic decision-making. Left unaddressed, these gaps will hinder sales growth, accelerate sales force turnover, contribute to erosion in share price, and negatively impact company valuation.

The heart of the issue is data – timely, accurate, compelling, and accessible information about marketplace behavior. Indeed, information strategy is fundamental to business strategy. When executed correctly, information strategy provides the basis upon which winning strategies are devised and executed. What happens, however, when it's not executed correctly? What happens if the approach to information strategy is heavy on technology and lacking in real world applicability? What happens when processed sales data is so complex that only IT professionals know how to use it? This is the situation that confronts many pharmaceutical and biotech companies.

Historically, drug companies have approached the task of sales data management by using a mix of internal and external resources. A host of data management companies have arisen to supply products and services to the industry. Many of these companies provide excellent value and have effective products. Most of these companies also suffer, however, from having little or no direct experience in pharmaceuticals and biotech. Can generic software products be uniformly applied to the unique requirements of pharmaceuticals and biotech? Should data management approaches be implemented at the company level or by functional area? Given the complexity of sales data, and its strategic importance to the industry, the viability of alternative approaches needs to be considered. Is there a better way to accomplish the task?



## Introduction continued

From an industry standpoint, the ideal provider of data management services would have:

- In-depth knowledge of the pharmaceutical and biotech industry
- State-of-the-art technical knowledge and capabilities
- An ability to blend the two disciplines
- Demonstrated skill in analyzing complex business issues
- A clear understanding of the unique data sets that are basic to the pharmaceutical industry
- A track record in managing all levels of pharmaceutical data for multiple clients
- Proven ability to process sales data in a timely and accurate fashion

We believe that Trinity Partners uniquely meets this profile.



## Trinity Partners: The Effective Combination

### **At Trinity Partners, our exclusive focus is health care.**

It means that we know the pharmaceutical and biotech world intimately. We know what drive markets, how to sell product, and how to change marketplace behavior. We know how to extract, analyze, manage, and distribute data. We are comfortable in both domains. We are among the fastest growing consulting firms in the health care industry.

At Trinity Partners, we are experts in the management of health care data and the creation of comprehensive data solutions. Our objective is to extract the full value of sales data to derive superior performance for our clients.

As consultants, we are experts in devising winning strategies that allow our clients to dominate their markets. As data managers, we are expert in information systems and technology applications. This dual focus allows us to combine the expertise that is typical of 'strategy' consulting firms with the technical, data-driven skills of firms specializing in information technology.

Broadly defined, Trinity Partners specializes in two types of projects:

- The creation of turnkey solutions for clients who participate in large therapeutic categories (i.e., diabetes, asthma, hypertension, etc.) where extensive sales and marketing efforts are required. In such markets, the emphasis is on quick, accurate, and targeted data to optimize sales performance.
- The integration of disparate (often non-traditional) data sources in new, evolving, or niche markets where traditional information sources may be lacking or incomplete.



## Creating Leading Edge Solutions to Complex Data Challenges

**We believe that accurate, targeted sales information can be a major source of competitive advantage.**

It provides the groundwork upon which precise and accurate decision-making can and should occur. It identifies performance issues, pinpoints areas for growth, and highlights market opportunities and unmet market needs. Accurate, consistent sales reporting is a key contributor to sales force satisfaction and reduced employee turnover.

What is our approach at Trinity Partners? We begin with the observation that the pharmaceutical and biotech industry does not suffer from an absence of sales information. Various providers (including, most notably, IMS Health, NDC Health, and Scott Levin) provide after-market sales information to the pharmaceutical industry. These firms track the flow of pharmaceutical products through the entire distribution network. They also tabulate prescription volume at the physician level. Most pharmaceutical and biotech companies purchase this type of data.

Why then is data management such a challenge to the pharmaceutical industry? There are many reasons:

- The sheer volume of sales data can tax the internal resources of even the largest pharmaceutical companies. For smaller companies, the cost of sales data management can be prohibitive.
- The tabulation of sales data requires divergent, multi-disciplinary skills that are not easy to harness in a large company environment.
- The data is complex and not always user friendly. Pharmaceutical sales data is typically reported at two levels: prescription (total, new, and refill from the prescribing physician), or outlet (i.e., hospital, retail pharmacy, etc.). The two data sets are very distinct. To be used effectively, an in-depth understanding of collection methodology, projection factors (if any), data gaps and limitations, etc. is required.



## Creating Leading Edge Solutions to Complex Data Challenges continued

- Most pharmaceutical sales data is made available in “raw,” unprocessed form. Extensive manipulation is often required to yield meaningful results and to create accurate, field sales reporting.
- The definition of what constitutes a “customer” can have multiple meanings. A hospital may, for example, simultaneously belong to a Group Purchasing Organization (GPO), be owned by a hospital chain, and participate on a local level in an integrated (health care) delivery system. As such, a hospital or similar account can appear on multiple membership/affiliates list, all of which may be important to different constituencies within a client organization.
- There are often multiple customers within the same company for the same data. Entities as dissimilar as sales operations/measurement, business analysis, finance, strategic customers, managed care/national contracting, to name but a few, often have a direct and vested need for sales information. Depending on the company, responsibility for sales data management can reside in one or more of these areas, or it can reside in an internal MIS or IT group.
- **The essence of data management is to make simple reports out of complex data sets.** This can be a daunting challenge for even the most sophisticated companies. The challenge is, of course, to define the data that is most important and fundamental to the business objectives. It is also critical that the needs of multiple users of the data are met – all from one seamless, accurate data source.



## Every Product Is Different

**American pharmaceutical companies received FDA approval for eighty-nine new medicines in 2002, including seventeen new molecular entities and nine new biologics.**

This data from the Pharmaceutical Research and Manufacturers of America (PhRMA) also reveals an additional one hundred and seventy-two new indications for previously approved products were granted. The products represent a wide range of therapeutic categories: four new medicines were approved for heart disease, five in cancer, and three in infectious disease.

2002 also witnessed continued major R&D funding (in excess of \$32 BB) by pharmaceutical and biotech companies. Successful post-approval commercialization efforts are critical to maintaining the flow of future products. The link is clear: superior commercialization drives profitability; profit fuels R&D spending.

During the last decade, U.S. pharmaceutical companies substantially increased the size and scope of their sales and marketing efforts. Numerous third party sales organizations have also arisen to provide supplemental (part-time and contract) sales forces. In parallel with the pace of FDA approvals, the promotion and sale of pharmaceutical products has evolved fundamentally. The classic detailing sales techniques of the past are seldom seen in today's pharmaceutical selling environment. Pharmaceutical sales representatives are now trained and compensated on the basis of their expertise in specific therapeutic areas. Their selling efforts emphasize the clinical record and medicinal benefits of the products that they represent. At the end of the day, however, the goal of the selling effort remains the same: to influence prescribing and/or dispensing habits among physicians to drive sales.

How then does this relate to pharmaceutical data management? The answer can again be found in the changing nature of the selling effort. As product approvals continue to increase, the number of sales representatives competing for limited selling time with physicians likewise has grown. Now more than ever, pharmaceutical companies need accurate metrics to assess sales performance. They need to know who their top customers are, they need to know competitor performance, and they need to know how their sales organization is performing. The data demands are large, increasing, and unremitting.



## Integration and Interoperability: 'Why Can't We Have One Data Source?'

**Even in the most tightly managed environments, pharmaceutical sales data is often processed and stored in multiple locations.**

It is not unusual to find dedicated servers for data warehouse applications, departmental servers, local user PCs, and PDAs, to name but a few.

Given such data configurations, **integration and interoperability pose huge challenges**. Sales data proliferation can lead to multiple, often conflicting, data sets within a single company. This multiplicity erodes management confidence, impedes field sales reporting, creates inconsistency in incentive compensation, and hinders the sales forecasting process.

In January 2003, after a full year of development, Trinity Partners launched its proprietary Pharmaceutical Reporting System™ (“PRS”). The core philosophy behind PRS™ is **data integrity at one controlled source**. This means that Trinity Partners can create a seamless data process encompassing multiple data streams that is highly customizable to unique client requirements. On a day-to-day basis, this means that sales applications as distinct as sales force sizing, alignment/ deployment, field sales reporting, incentive compensation, and forecasting can **operate off the same integrated data set**. Sales measurement and analytics are consistent and accurate. Sales data is available quickly and accurately the first time. Sales information can be easily archived and retrieved for retrospective analysis and sales trending.

The key design objective of the Trinity PRS™ system was to provide clients with **unsurpassed accuracy, speed, and flexibility in managing large and/or complex data sets**. This means not just the management of data inputs but also data assembly, tabulation, extraction, and reporting. The design philosophy behind PRS™ was simple. Create a system that:

- Can be fully integrated
- Yields one consistent, accurate source of data
- Is customizable to unique client needs/requirements
- Facilitates clear and concise data reporting
- Can evolve as client needs and requirements change



## Integration and Interoperability continued

PRS™ technology can be utilized in its entirety or selectively. We realize that many of our clients have made substantial investments in their data management processes. Our intent is not to disrupt an otherwise efficient process. Rather, where it makes sense, portions of the PRS™ process can be substituted to provide a more effective solution. Our clients make the decision to implement full or partial PRS™. This decision is made after an in-depth requirements assessment and technology review undertaken collectively with Trinity Partners.



## PRS™: Unsurpassed Flexibility and Integration

### Why is flexibility in all phases of data input and output important?

Data providers such as IMS and NDC distribute data to their clients in a fixed format that is consistent with their hierarchical approach to data collection. IMS and NDC report sales at either the outlet or prescribing physician level. For many pharmaceutical companies, however, additional manipulation of the data (consistent with internal business rules) may be necessary.

The architecture of PRS™ leverages the query power, scalability, and data management features of SQL server, Data Transformation Services (DTS), and Microsoft .NET technologies. The PRS application is a fully integrated solution. The application allows for multiple methods to deliver data.

PRS™ allows clients unmatched flexibility in all phases of data input and output. Why is this important? Data providers such as IMS and NDC distribute data to their clients in a fixed format that is consistent with their hierarchical approach to data collection. IMS and NDC report sales at either the outlet or prescribing physician level. For many pharmaceutical companies, however, additional manipulation of the data (consistent with internal business rules) may be necessary.

For example, a hospital or similar account may be of sufficient size to warrant coverage by multiple sales representatives. Existing data sources may, however, only provide a single measure of sales volume. In such situations, our clients work with us to devise appropriate allocation systems. This can be as simple as assigning a fixed percentage of monthly sales to each representative or it can be based on an extended analysis of prescription outflow and call activity.

At the physician prescriber level, the issue of “moving prescriptions” creates a substantial data management challenge. Such prescriptions are called “moving” because the location of the prescribing physician may be different than the retail location where the prescription is filled. Different data providers will track this sales activity at one or both locations. The danger is that if this issue is not properly addressed, certain sales personnel will receive windfalls and others will be unfairly penalized, depending on the nature and extent of data capture.



## PRS™: Unsurpassed Flexibility and Integration continued

Yet another example can be found in the oncology market. Here the issue is not one of retail fulfillment (oncology therapeutics are generally not prescription based), but rather of site of administration. A patient receiving chemotherapy may, for example, live in one locale, see an oncologist in another, and receive therapy at an oncology clinic in yet another geographical area. Without proper rules for measurement, the resulting data capture may provide a distorted view of actual sales performance.

In more complex circumstances, data allocations are needed to determine the sales generated by multiple sales forces selling the same product, or for sales organizations from multiple companies involved in co-promotions or co-marketing agreements. This issue has become particularly acute as more and more new therapies come to market and are marketed through shared arrangements.

In certain markets, and for a multitude of reasons, pharmaceutical companies often elect to not report sales, or they instruct wholesalers to block the transmittal of such information. In other cases, only a partial level of reporting is allowed. On the customer end, certain entities (often managed care providers) bypass wholesalers and require direct shipment from pharmaceutical companies. Many of these entities block the reporting of their pharmaceutical purchases, or allow for only aggregate amounts. If these types of transactions are not accounted for, the resulting sales picture will be distorted.

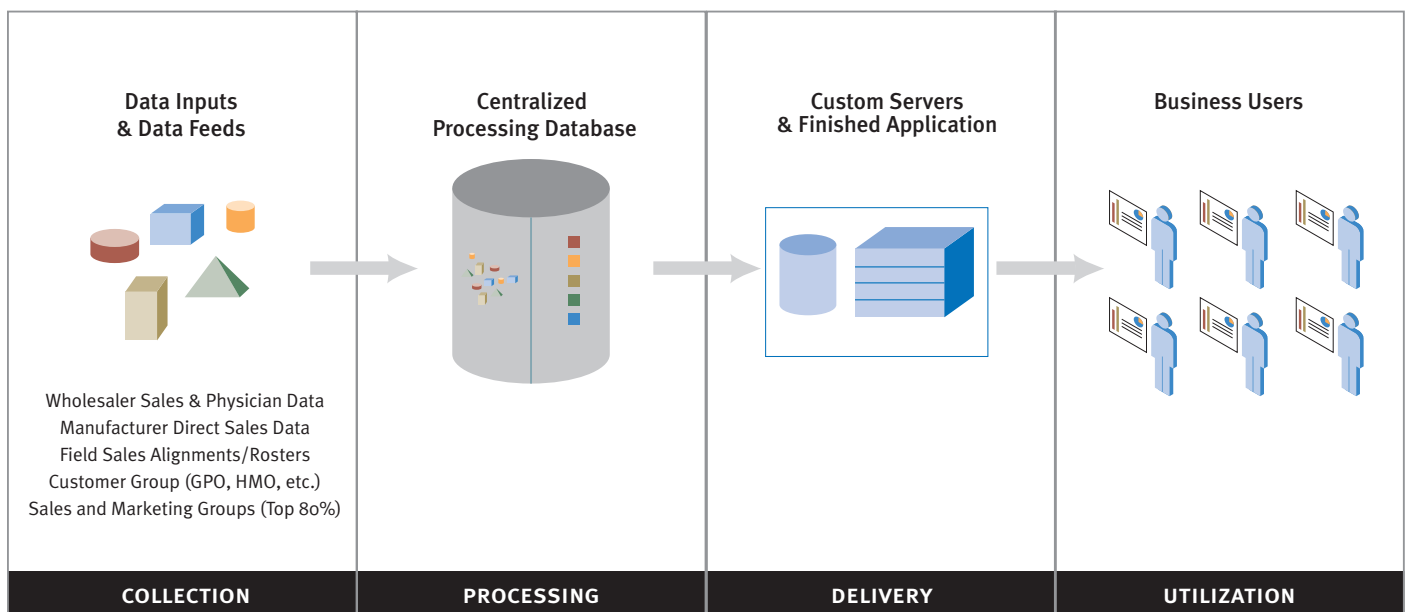
The Trinity PRS™ system has been designed to accommodate multiple data sets and multiple (extensive) manipulations and/or allocations of data. **PRS™ is completely customizable to the needs of our clients.** PRS™ is not off-the-shelf software. We believe that the inherent complexity of pharmaceutical sales data precludes 'canned' solutions.

## PRS™: Unsurpassed Flexibility and Integration continued

### PRS™ Architecture

The architecture of PRS™ leverages the query power, scalability, and data management features of SQL server, Data Transformation Services (DTS), and Microsoft .NET technologies. The PRS application is a fully integrated solution. The application allows for multiple methods to deliver data.

#### TRINITY DATA SOLUTION





## PRS™: Technical Features

### Defining new standards for performance

In the highly competitive pharmaceutical market, "time is money." From the standpoint of pharmaceutical sales data, this means that the longer it takes to track sales performance (to know what's really happening in the marketplace), the longer it will take to be the market leader.

At Trinity Partners, our PRS™ solution is designed with speed and accuracy in mind. Drawing on our knowledge of the pharmaceutical industry, and through the use of highly automated data management processes, we can tailor PRS™ solutions that put processed sales information into the hands of the sales force in record time. Depending on the size and scope of the market (and the quality of the data feeds), a fully functioning PRS™ process can be structured to achieve turnaround times in as little as two or three days. In certain cases, data can be available in a single business day.

#### Technical Features

Primary PRS™ tasks and outputs include:

- A SQL server database that supports multiple reporting applications
- Automated, highly customizable (data) import processes
- Web-based application with zero footprint (no installation required)
- Extensible Markup Language (XML) technology can be used to integrate with existing Customer Relationship Management (CRM) packages such as Siebel and Microsoft
- Secure data environment through Secure Sockets Layers (SSL) and Virtual Private Network (VPN) protocols



## PRS™: Integration with CRM

### The Value of CRM

*"The easiest part of data mining is running the analytic routines. It's just two or three lines of statements. The hard part is getting the data together, mainly because of the silo issues."*

CRM Magazine, December 2002

The full value of CRM can only be achieved when the required data sources are integrated and linked as a whole.

### The mammoth CRM projects of the past are not as common in today's world.

CIOs and IT professionals still worry about the maintenance of existing systems and how to maximize the value of current licenses. Pharmaceutical and biotech companies are not strangers to these topics.

CRM emerged as a technology-driven means to integrate extensive customer data with sophisticated data warehousing and mining techniques. Properly executed, the result would be the deepening of one-on-one relationships with key customers; broader understanding of selling dynamics, more precise marketing and selling efforts, and quicker, more accurate determination of sales force ROI. What is the reality? What has been the real CRM experience in the pharmaceutical industry?

At Trinity Partners, we see the good and bad of CRM implementation. Many companies have made substantial CRM investments and have seen those investments pay solid dividends. For others, the experience has been less positive. Many companies lament that CRM has become little more than a system to record customer leads, to measure call activity, and to schedule future appointments. For many, the analytic richness of the CRM system has never been achieved and remains an elusive future goal.

The Trinity Partners PRS™ system is fully integrated solution. Our application allows for multiple methods to deliver data to CRM. We can, for example, integrate PRS™ from the web into the CRM provider or from an XML interface. None of these solutions require duplicate data stores; the data always remains at one controlled source.

The flexibility of PRS™ ensures that our clients will have multiple methods available to deliver data to CRM, if and when they desire. In the interim, however, PRS™ provides a solution that can be maintained separately or seamlessly incorporated into a CRM package. Most importantly, implementation of PRS™ means that control of the data stays with the client in a stable, accurate, single source environment.



## Our Clients

### **Our clients are among the most successful companies in the pharmaceutical and biotech industry.**

We have extensive, long-term relationships with our clients. We maintain a single client focus per therapeutic area.

Our client work is by nature confidential and proprietary. The data that we manage is highly sensitive; we go to extraordinary lengths to ensure the accuracy, integrity, and security of our data management processes. We work closely with outside experts and with our clients to implement policy and procedures that exceed industry standards.

We define a level of interaction based solely on the needs and strategic objectives of our clients. For some, that entails a full outsourcing of the data management, data warehousing, and sales reporting functions. For others, the emphasis is on account targeting, market segmentation, rebate management, sales force sizing and deployment, and incentive compensation systems.

We recognize that our clients work in high growth, rapidly changing markets. That means that our approach to data management must evolve (and indeed anticipate) the ongoing and emerging needs of our clients. It is why we work as strategic partners not as IT vendors.



## Representative Engagements

**At Trinity Partners, we align the needs and budgets requirements of our clients with the appropriate technology and analytic solution.**

Our work ranges in scope from automated email reporting to web-based applications powered by multi-million record databases. We deliver data at any levels of frequency – daily, weekly, monthly, quarterly.

We approach this challenge by integrating customer applications and database design with a commercial software development process. The end result is a scalable and highly usable application built to our rigorous quality standards – an application that can grow with your business.

Because of the proprietary nature of our work, and the sensitive nature of the data, we do not disclose our clients. We are pleased, however, to provide general descriptions of representative engagements:

### Full PRS Implementation

|                           |                                                                                                                                          |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Client</b>             | Major global pharmaceutical manufacturer                                                                                                 |
| <b>Product</b>            | Oncology therapeutic and supportive care                                                                                                 |
| <b>Sales organization</b> | In excess of 500 domestic sales representatives<br>Extensive coverage of multiple physician specialties                                  |
| <b>Data challenges</b>    | Highly complex data sets from multiple sources<br>Extensive internal data allocations                                                    |
| <b>Our solution</b>       | Full PRS implementation<br>Monthly/weekly web-based reporting<br>Direct link to incentive compensation system<br>400+ customized reports |



## Representative Engagements continued

### Partial PRS Implementation

|                           |                                                                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Client</b>             | Small, fast-growing biotech company<br>Recent FDA approval for lead product                                                                 |
| <b>Product</b>            | Anti-infective with broad label indication                                                                                                  |
| <b>Sales organization</b> | 90 sales reps<br>Large physician specialty base                                                                                             |
| <b>Data challenges</b>    | Account targeting<br>Sales performance metrics                                                                                              |
| <b>Our solution</b>       | Data assembly, tabulation and reporting<br>Mix of paper reports, CDs and batch email<br>Full integration with incentive compensation system |

### Market Share Enhancement Strategy: Design and Execution

|                              |                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Client</b>                | Major global pharmaceutical manufacturer                                                                                                                                                                                                                                                                                                                                                     |
| <b>Competitive situation</b> | Trinity client the established market leader<br>Recent FDA approval for competing product                                                                                                                                                                                                                                                                                                    |
| <b>Client need</b>           | Market share protection strategy (\$1BB+ market)                                                                                                                                                                                                                                                                                                                                             |
| <b>Our solution</b>          | Full market assessment<br>Key customers identified through declining and segmentation analysis<br>Rebate levels tied to market share maintenance/enhancement goals (based on prior year)<br>Sales of client product and sales of products from sister companies used to determine rebate payouts<br>Extensive data assembly and processing by Trinity Partners involving multiple data feeds |



## Representative Engagements continued

### National Account Management: Measurement and Strategy

|                              |                                                                                                                                                                                                                                                                                   |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Client</b>                | Leading U.S. biotech company                                                                                                                                                                                                                                                      |
| <b>Product</b>               | Innovative biologic for chronic therapy                                                                                                                                                                                                                                           |
| <b>Sales organization</b>    | 75 +/- domestic sales representatives<br>Coverage tightly focused on one primary physician specialty                                                                                                                                                                              |
| <b>Competitive situation</b> | Recent new product entrant with aggressive rebate-driven discount strategy<br>Improving persistency of chronic therapy contributes significant revenue benefit                                                                                                                    |
| <b>Trinity analysis</b>      | Designed effective PBM contracts to defend client's market share<br>Timely and actionable persistency metrics                                                                                                                                                                     |
| <b>Our solution</b>          | Market share contracts tied to performance hurdles<br>Complex rebate measurement including managed care plan level data<br>Developed unique persistency metrics for retail and specialty pharmacy programs<br>Ongoing troubleshooting of data feeds from PBM and pharmacy sources |



We invite you to explore the Trinity Advantage



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