Spend Visibility:
A Guide to Effective Program Design

March 2005
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Executive Summary

Key Takeaways

- To maximize value from any solution, visibility should extend into spend, processes and performance.
- There are many approaches to gaining visibility, none of which should be considered best practice for all companies. Every company has unique needs and conditions that determine the best approach.
- The approach selected can greatly affect the level of success and must be carefully considered.
- The ongoing nature of spend visibility means that companies need to develop an open, collaborative relationship with a solution provider that is committed to continuous improvement.

Visibility in the Spend Management area refers to the ability of a buying organization to enjoy a comprehensive view of the metrics that drive improved cost savings, process efficiency and supply-chain performance. Specifically, spend visibility enables analysis of past spend for planning future direction and monitoring for compliance issues.

Spend Visibility has been the subject of great interest in the past couple of years as solutions have emerged that deliver with consistency and accuracy. Many recognize it as a necessary part of ongoing corporate Spend Management programs as well as the best entry point for those new to Spend Management.

Recent studies by analysts validate the value of effective Spend Visibility solutions.

- Incremental value achieved is real and substantial, ranging from 3.6% to over 20% of spend.
- Numerous qualitative benefits such as empowerment of procurement add to the net benefit.

Visibility should extend beyond simply showing who purchased what from whom. Maximum value is obtained by looking into procurement and sourcing processes to identify bottlenecks, and by measuring the performance of buyers and suppliers. This is especially true in the increasing number of organizations where procurement is evolving into a strategic profit center.

Numerous challenges have traditionally prevented effective visibility into spend, processes and performance. These range the entire decision making process, from aggregating the necessary data to enriching it into a useable form to enabling spend-focused analysis by decision makers.
Improving solutions have made overcoming these challenges increasingly possible. However, the appearance of new solutions has also added complexity to the selection process and introduced new pitfalls. Options now range from fully managed services to self-service behind-the-firewall software tools run by a firm’s own visibility team.

While many factors are common to best practice programs, the delivery model chosen is not one of them. Each approach has distinct advantages and disadvantages. To maximize its chances of success, a firm should prioritize its goals and honestly assess its culture and capabilities. The results of this self-assessment should be matched against each delivery model and the best fit selected.
Introduction

Ariba has delivered varying visibility solutions for over four years to more than 80 Spend Management pioneering clients. In the process, we have gained a tremendous amount of insight into the types of solutions that are most likely to be effective at different types of companies, as well as the mistakes made by solution providers and their customers. The purpose of this guide is to share that experience with those looking at pursuing a visibility initiative. We hope this guide helps to prepare you for the journey and makes it as pain-free and productive as possible.

After a review of the benefits of effective visibility and the challenges involved, this guide will walk through each of the distinct solution approaches and analyze the factors that may make each appropriate or inappropriate for your firm. Lastly, we will review the most critical pitfalls that frustrate the process and hinder success.
Value of Visibility

Though there is clearly value in basing purchasing decisions on accurate, complete information, only recently have studies quantified this value and qualified the full range of benefits. These benefits range beyond expected increases in sourcing savings and improved supplier management. Aberdeen Group states that, "accurate spend data is equally critical to other business objectives, including compliance management, inventory management, budgeting and planning, and product development and management." 1

The integration of Visibility solutions with other Spend Management applications has contributed greatly to this broad range of benefits by enabling three forms of visibility:

- Spend visibility: Analysis of past spend by supplier, organization, commodity and other common dimensions to identify future sourcing opportunities, leverage spend in negotiations and track compliance issues.
- Process visibility: The ability to track sourcing and procurement processes to identify bottlenecks and trigger actions such as contract renewals.
- Performance visibility: The ability to track qualitative and quantitative supplier performance indicators as well as buyer compliance with established policies/contracts.

This integration should be considered when planning your program to ensure you realize the full range of benefits. This breadth of visibility is especially critical to the empowerment of purchasing organizations, which can effectively balance costs and non-cost factors in optimizing decisions for the entire organization. This adds credibility to procurement and has been a key factor in its transition from a cost center to profit center.

The Aberdeen Group has been at the forefront of research in Spend Analysis, having spent over three years examining the spend data management strategies, processes and systems of nearly 200 enterprises. Its studies have shown the following benefits:

<table>
<thead>
<tr>
<th>Improvement Area</th>
<th>Performance Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material / Services Costs</td>
<td>Reduce costs 2 - 12% through informed strategic sourcing strategies.</td>
</tr>
</tbody>
</table>
| Supplier Management    | Eliminate duplicative suppliers.  
(Reduction depends on previous efforts.) |
| Contract Compliance    | Improve compliance 65%.  
Save 7% through use of contract pricing. |
| Regulatory Compliance  | Meet regulatory reporting rules. |
| Inventory Management   | Cut excess stocks >50%, Lower inventory costs 5 - 50%.  
Reduce expediting costs. |
| Product Management     | Cut unnecessary part introductions by 20%, Increase part reuse, Align design and supply strategies, Facilitate early supplier integration. |
| Process Cycles         | Reduce spend analysis project cycles 30 - 50%,  
Refocus sourcing and business managers on strategic tasks. |

Source: Aberdeen Group, September 2004

An earlier study by Yankee Group uncovered a similar range of benefits, including improved purchasing efficiency, contract compliance, improved contract pricing and terms, and supplier rationalization and improved performance. The total incremental savings was approximated at 3.6 percent of spend, a tremendous ROI for any large organization.\(^2\) Furthermore, their research indicated that the average Global 2000 purchasing organization spends 40 percent of its resources "gathering, analyzing, and distributing transactional spending data and relationship details." \(^3\) A more automated, repeatable and efficient Spend Visibility program can help purchasing professionals focus on their core competencies instead of data gathering and cleaning.

\(^2\) The Yankee Group, "Spend Visibility Drives Sourcing and Procurement Efficiency," May 2003, Pg. 6

\(^3\) Ibid, Pg. 4
Challenges

Despite the clear value obtained from having good visibility across one’s spend, processes and performance, very few firms have an effective, formal program in place. AMR estimates that only 42 percent of large firms (average $4B in spend) surveyed can view their spend at the detailed level needed to drive informed decisions.\(^4\) The percentage is much lower among smaller firms. Aberdeen Group has called this deficiency a "corporate epidemic" and estimates that "inadequate spending analysis capabilities are costing businesses $260 billion in missed savings opportunities annually."\(^5\)

If there is such value in Spend Analysis, then why do so few firms have an effective program in place? What challenges create this epidemic? Are the challenges overwhelming for today's solutions? And most importantly, how can your firm succeed?

The goal of visibility is to have access to the appropriate data to make informed decisions. The below chart illustrates the challenges (in red text) that obstruct the path to informed decisions.

\(^4\) AMR Research, "Field tactics in Spending Analysis," March 08 2004, Pg. 1

\(^5\) Aberdeen Group, "The Spending Analysis Benchmark Report," January 2003, Pg. 3
The reality is that the challenges are daunting and many solutions fail to address all of them. Also, for each issue, there are generally multiple challenges. A firm should ensure that the solution selected addresses all issues and associated challenges that are relevant to its own situation. Those most critical to consider include:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Typical Challenges</th>
<th>Solution Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregating Data</td>
<td>- Numerous, dispersed data sources&lt;br&gt;- Inconsistent formats&lt;br&gt;- No automated ability to extract, transform and load data into single location&lt;br&gt;- No automated way to confirm file formats or identify loading errors – delays&lt;br&gt;- Collection of data based on value to spend analysis, not for simple financial reporting</td>
<td>- Automated ETL ability&lt;br&gt;- Quick set-up ETL&lt;br&gt;- Data Warehouse functionality&lt;br&gt;- Auto-validation of file formats, including error feedback&lt;br&gt;- Spend Visibility schema that facilitates best practices in Spend Analysis</td>
</tr>
<tr>
<td>Making Data Meaningful</td>
<td>- Little or no commodity classifications of all sources of spend&lt;br&gt;- Inconsistent vendor naming&lt;br&gt;- Free-form or random descriptions&lt;br&gt;- Incomplete data&lt;br&gt;- Lack of supplier parentage info to leverage spend</td>
<td>- Automated classification for consistency&lt;br&gt;- Automation that is not dependent on a single field&lt;br&gt;- Extensive supplier database to normalize and enrich supplier information&lt;br&gt;- Continuous improvement in classification automation and accuracy</td>
</tr>
<tr>
<td>Providing Decision-Makers with Data</td>
<td>- Analytical software not accessible by decision-makers&lt;br&gt;- Analytical software not user-friendly – poor user adoption</td>
<td>- Web-based analytical software&lt;br&gt;- Analytical software that is easy to use</td>
</tr>
<tr>
<td>Enabling Spend-Focused Analysis</td>
<td>- Analytical software designed for general purpose reporting</td>
<td>- Spend-focused schema and reports&lt;br&gt;- Commodity-specific schema and reports (e.g. labor, direct materials)</td>
</tr>
<tr>
<td>Repeating Process</td>
<td>- Significant manual effort – does not scale&lt;br&gt;- Inconsistent classifications over time due to manual process&lt;br&gt;- Process breaks when one element upgraded or replaced</td>
<td>- Automated classification and enrichment&lt;br&gt;- Closed-loop process with maximal integration of elements (upon implementation and future upgrades)</td>
</tr>
</tbody>
</table>

Many firms fail to consider all relevant issues and therefore select inappropriate solutions or set unrealistic expectations. By understanding all the issues at hand and designing your solution to address all of them, these problems can be avoided.
The Path to Visibility

A critical decision in the design of your Spend Visibility program, and one which has received precious little attention, is the choice of delivery. The delivery approach selected can be the key determinant in the success of your Spend Visibility program. More so than with the issues in the previous section, the optimal approach is highly dependent on your company-specific situation so it is not realistic to define a universal, best-in-class approach. The delivery approach also determines the internal resource commitment required and the speed of your program roll-out. Some leading vendors offer a choice in delivery and this should be a key factor in evaluating different solutions.

Available Approaches

Visibility solutions can be broadly classified in one of four categories:

1. Manual: Either performed by external consultants or internally, manual solutions are labor-heavy, utilizing generic software such as basic spreadsheet applications to classify and analyze spend.

2. Managed Service: Companies effectively outsource the bulk of the effort to a third party. Software is not licensed or installed, with the analytical technology usually hosted and accessed through the web browser.

3. Software (or Self Service): Companies run their own program with the use of specialized software tools to automate the process, which are licensed and installed behind-the-firewall.

4. Hybrid: A combination of two or more of the above. This can involve a simultaneous use of more than one type or a phased approach where the project plan involves a transition from one type to another.

Specific Approach Overviews

The following sections discuss the four general delivery approaches and are designed to help you identify the one that is most appropriate for your firm.

Manual Process

Overview: The bottom line is that manual approaches are generally far inferior to others and should only be considered in special cases. Those cases are:

- Small firms that may lack the spend volume to achieve an adequate ROI given the cost of current solutions
- Lack of internal budget or commitment for a different approach, though this is an internal battle probably worth fighting
- For a single project designed to obtain a snapshot of historic spend and prove the value of investing in a more effective Spend Analysis program, when there is no commitment to Spend Analysis
Unlike the other approaches discussed, it is fair to say that this one is clearly not best-in-class for any medium to large firm. Nevertheless, many firms still conduct manual spend analyses on sub-sets of their data. Aberdeen Group estimates that "[o]ver 60% of enterprises use basic spreadsheet applications for managing and analyzing spend." 6

In the manual approach, firms either use internal staff or external consultants to analyze spend, commonly with Microsoft Excel or similar applications.

**Advantages:** There are few. The primary one is that cost is generally lower than committing to another approach, though so is the value obtained. For small amounts of data, this process may be faster as well, at least initially since no software implementation or configuration is required.

**Disadvantages:** There are many. Referring back to Diagram A, the manual approach fails to adequately address all issues, most significantly in:

- **Making Data Meaningful:** Classifications will be inconsistent across data sets and time as different individuals classify subjective or incomplete items differently. Lack of a supplier database will prevent any meaningful enrichment of supplier data.

- **Repeating Process:** A complete lack of scalability exists with the manual approach. If consultants are used, the firm becomes dependent on repeated engagements that will prove very costly over time and prevent transfer of knowledge to the organization. If done internally, the process takes as long as the first time regardless of the iteration. The effort involved means that it is unlikely that the process will be done on a sufficiently frequent basis.

**Managed Service**

**Overview:** In this approach, the firm effectively outsources the entire Spend Analysis program (minus actual slicing and dicing of the enriched data) to a vendor. Ordinarily the firm will provide its data in a pre-agreed format to the vendor at the agreed-upon frequency. The vendor will classify/enrich the data (preferably using automated technology) and provide it for user analysis via a hosted analytical technology. The firm pays a service or subscription fee and neither installs nor owns any software.

**Advantages:** First, this approach allows customers to **focus on their core competencies**, conducting analysis to drive strategic actions. Resources do not need to be tied up processing data.

Second, **TCO may be lower** since the vendor is likely to be far more efficient than the firm could hope to be in its operations. Hardware and software costs

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should be spread across customers and expert data professionals may be based out of low-cost countries.

Third, this approach is very likely to yield initial results much faster than the self-service model since no software or hardware needs to be installed and the team processing the data is already expert in that process. This benefit is likely to be larger the more complicated the data is. Based on the motivations behind the project, this can be a significant factor.

Disadvantages: The company is likely to never "own" its data or be able to proactively identify issues restricting the data's usefulness. Should the company choose to end its relationship with the vendor, the knowledge will have to be bought (if possible) and integrated or be lost.

Second, the company must continually pay a subscription fee that will eventually be higher than the maintenance fees in the self-service model.

Third, since the firm does not own any software in this model, it has the least flexibility to customize it and integrate it with other Spend Management applications. This can place significant limitations on the ability to create custom analysis, particularly around processes and performance.

Lastly, some firms may have security issues with transferring data externally, particularly as it may be enriched offshore.

Case Study - Giant Eagle

A great example of a firm for which selecting the managed service approach was key in meeting its Spend Visibility goals.

Company Overview: Giant Eagle, Inc., ranked 28 on Forbes Magazine's largest private corporations list and in 2002 named Progressive Grocer's Retailer of the Year, is one of the nation's largest food retailers and food distributors with more than $5.2 billion in annual sales. Annual indirect spend is in excess of $550M.

Founded in 1931, Giant Eagle has grown to be the number one supermarket retailer in the region with 140 corporate and 81 independently owned and operated stores throughout western Pennsylvania, Ohio, West Virginia and Maryland. Its growth had led to increased opportunities to leverage spend hampered only by a lack of a centralized view of that spend. It was impossible to determine what savings were being realized. Growing competition (competition size and price aggressiveness) increased the need to capitalize on opportunities to reduce costs and increase price competitiveness.
**Objectives:** Giant Eagle identified six primary Spend Management objectives:

1. Achieve and leverage visibility to indirect spend across the organization
2. Increase identified and realized savings
3. Streamline and standardize Spend Management processes and systems for efficient sourcing and procurement
4. Proactively address Giant Eagle spend culture and organizational acceptance
5. Adopt the Giant Eagle Spend Management program across the organization
6. Increase use of the online sourcing tool across the organization

**Approach:** Giant Eagle realized that quickly gaining accurate visibility across their entire indirect spend was essential. The knowledge gained would help drive the planning process and be crucial to achieving buy-in across the organization, particularly at the Business Unit level. Several factors drove its approach selection decision:

- IT personnel were already dedicated to other projects so there was little chance of executing an effective Spend Visibility program on its own in the near term.
- Giant Eagle did not have many standard Spend Management processes or programs in place and was looking for an application that would help standardize procedures and eliminate the current 'customized' processes and reports that each different department was using. Therefore, a flexible approach that allowed excessive customization was a negative in this case.
- The project team needed to devote its time to planning and gaining buy-in with all key stakeholders as visibility was achieved.
- Giant Eagle was interested in testing any solution and quantifying the actual benefits before committing long-term resources or significant dollars.

Given these unique factors, Giant Eagle decided to take the Managed Service approach, subscribing to the Ariba Spend Visibility Solution. This was the fastest path to gaining visibility as no software needed to be installed and Ariba's experts were efficient at using their technology and conducting QA quickly and accurately using effective, defined processes. This approach also involved a relatively low initial cost and resource commitment, allowing the best way to test Ariba's ability to deliver on a full scale.

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**Approach:**
Giant Eagle decided to take the Managed Service approach, subscribing to the Ariba Spend Visibility Solution.
Results: The Spend Visibility program was executed by Ariba (with input and coordination with Giant Eagle's project team) in parallel with internal planning efforts. As soon as spend enrichment was complete, the results were available to Giant Eagle via their web browser in Ariba Analysis, an easy-to-use, spend-focused analytical interface. With initial "power user" training, the core team was able to use the results to drive internal presentations with senior and business unit leadership to gain buy-in for the broader Spend Management initiative. The previous lack of knowledge about their spend became apparent and the new knowledge empowered the project team and generated broad interest in the entire program. Some of the specific problems immediately identified that helped generate interest in the program included:

- Parent-child relationships with suppliers that were not being used to leverage spend in supplier negotiations
- Data discrepancies and data errors in accounting systems, many of which were easily corrected once identified
- Numerous opportunities where different divisions were using the same supplier but paying different prices, easily fixed for immediate savings
- Several instances of individual departments or divisions buying off contract
- Numerous opportunities for future sourcing projects

A broader training program was all that was needed to roll out the Spend Visibility program to the business units to start identifying savings opportunities. The sourcing pipeline is being developed and any savings will be easily tracked to ensure they are realized (note that this program was rolled-out just prior to this paper being published so sourcing results could not yet be confirmed for publication).

Self Service (with specialized software)

Overview: The self-service approach is the opposite of the managed service approach, involving the use of licensed, specialized Spend Analysis software to conduct data classification/enrichment and analysis. Ordinarily, the software provider will sell implementation services and training for end users of the analytical and data enrichment software. The provider may hand-hold the users through the first data enrichment process but afterwards several employees, normally from the purchasing and / or IT departments, will run the program.

Advantages: This approach maximizes the amount of information captured within the organization. The firm will really "own its data" and key individuals will grow to understand the data issues facing the firm, potentially being able to improve data collection processes going forward.
For some firms, the security of not transferring data externally can also be important.

The outward cost is also usually limited to maintenance fees after initial licensing and implementations (however internal costs must be considered!).

Lastly, licensing software allows firms to customize it as needed and to integrate it into other Spend Management applications (e.g. sourcing, contract compliance or eProcurement applications). This enables the firm to most effectively track processes and performance, providing the most extensive analysis.

Disadvantages: The disadvantages mirror the advantages of the managed service approach. The greatest disadvantage is that there is a significant, ongoing resource commitment involved with the self-service model, particularly around data enrichment. If leadership is not committed to the Spend Analysis initiative, the project may fail or not even get off the ground, becoming stuck in the implementation phase indefinitely. A poor relationship between Procurement and other critical parties, IT in particular, can prevent timely or complete data processing. Companies must honestly access the willingness of critical players (Procurement team, IT, BU Managers and potentially others) to collaborate on the effort on an ongoing basis. Ariba encourages companies interested in this approach to map out the specific requirements, including their frequency and resources needed, and gain support before selecting this approach.

The resource commitment also involves a large, but often less apparent, Total Cost of Ownership (TCO). The key point is that, while this approach may seem significantly less expensive than a managed service approach over time, there are many costs that must be factored in outside the vendor proposals. See the "Pitfalls" section for details. These may make it the most expensive option in the long run.

Lastly, this approach often takes longest to implement and achieve ROI. Software implementation (particularly if deep integration and/or customization is desired) can take months and the company's data team will be learning the new technology and processes from scratch. Companies demanding a quick ROI would do better with a different approach.
Case Study - PPG Industries Inc. (PPG)

A classic example of a firm for which the self-service approach was optimal. The results PPG achieved, particularly the coverage obtained, are remarkable.

Company Overview: PPG is the world's leading manufacturer of transportation coatings, a global supplier of industrial and packaging coatings, and a leading producer of architectural coatings, primarily in North America. The company also makes sealants, adhesives, metal pretreatment products, flat glass, fabricated glass products, continuous-strand fiber glass products, and industrial and specialty chemicals, including photochromic ophthalmic lenses, optical monomers, silicas and fine chemicals. It operates nearly 120 manufacturing facilities in 23 countries across the globe.

Objectives: With more than $5 billion in indirect spend across more than 15 business units offering products from industrial coatings to insurance, PPG knew it had considerable leverage with suppliers if it could establish a centralized, controlled procurement discipline backed by comprehensive information and analytics. Additional objectives included improved data classification, enhanced spend information available online, supplier rationalization and maverick spend reduction.

Approach: Having internal support and resources, and a good relationship with key stakeholders such as IT, PPG chose the self-service approach. In 2000, PPG made an investment in data warehouse and business analytics software but found that this only addressed part of the problem. Data was consolidated from its five different ERP systems and its purchasing card program but data quality was still poor and the analytical tool was difficult to use and customize, limiting adoption and repeatability. PPG formed cross-functional teams to support the effort, even co-locating IT resources within the purchasing department, and found the collaboration exceptional. In late 2003, PPG licensed Ariba Analysis to provide an easy-to-use and customized, spend-focused analytical tool, and Ariba Data Enrichment (at the time still Softface technology) to address the poor data issue.

Results: By late 2004, PPG had managed to place over 97 percent of indirect spend under central visibility. Key benefits have included:

- 90% supplier reduction for leveraged categories
- 10% overall cost reduction for leveraged categories
- New level of collaboration throughout the company

Additionally, by controlling its own data, PPG has identified an estimated additional three percent in savings due to bad data captured in ERP and other systems. It is making plans to address this problem and capture those savings. Jim Polak, Director of General Purchasing, recently stated that "data is the fuel for everything we are doing in Spend Management and e-sourcing."
Hybrid Approach

Definition: A hybrid approach can involve the simultaneous use of more than one type of the previous approaches (e.g. data enrichment service and installed analytical technology) or a phased approach where the project plan involves a transition from one type to another over time. As the advantages and disadvantages of using more than one type of approach simultaneously can be inferred from the above sections, we will focus on the phased approach here.

The one note we would like to stress concerning the simultaneous approach is that data classification / enrichment is a difficult and resource-intensive process. As a result, Ariba recommends that firms desiring a simultaneous hybrid approach utilize a service for this component of the program while licensing and installing the analytical software. Installing the software allows firms to customize it and maximize the potential types of reporting, particularly by integrating it into other Spend Management applications.

The particular phased approach that Ariba has found very beneficial is to begin with a fully managed service delivery, then transition over time to a complete or partial behind-the-firewall software solution, assuming an increasing role in the process. A phased approach to all sources and geographies of spend data is also beneficial.

Advantages: Overall, a phased approach can deliver most of the advantages of both the managed service and self-service approaches, particularly for more complex visibility projects. Specifically, it avoids permanent tradeoffs between speed and coverage/depth of classification. For this reason, Ariba recommends this approach for most customers.

By starting with a managed service, the company gains the benefit of speed by preventing software implementations from becoming a ROI bottleneck. The company also has the benefit of the first pass at data enrichment (by far the most complicated and time-consuming) being performed by experts.

With the best solutions, the knowledge gained in this initial processing is captured in the software. This means that, once the software is brought behind the firewall and run by internal resources, a far greater percent of items will be confidently classified automatically. Less internal resources are needed upfront, or for less time, than by starting with the self-service model.

Since this approach leads to the self-service model, data security issues are only a concern for a brief period of time and there are no permanent subscription charges. And the company will "own" its data, but with less initial pain. Since software is licensed, full integration and customization will be possible.
Disadvantages: No approach can eliminate all disadvantages, but they are limited here. Those that remain include:

- **High TCO:** This approach requires both initial service / subscription fees and license / maintenance fees, plus internal resources on an ongoing basis. Depending on the firm, this may be the most expensive option, though the quick ROI and ongoing benefits must be considered.

- **Security:** Initially, data will need to be sent outside the firewall, though this is temporary.

- **Self-service requirements:** If both the data enrichment and analysis software is eventually licensed, the resource and collaboration needs of the self-service approach apply. To prevent this, many companies choose to license the analytical tool only; continuing with data enrichment as a managed service.

**Case Study - Tyco**

A classic example of a firm for which the phased approach has delivered coverage without having to compromise on speed and ROI.

**Company Overview:** Tyco is a global conglomerate that employs 260,000 people in over 100 countries. It has many independent holding companies with no common IT infrastructure and over 200 sources of data. Total spend, including direct and indirect, is in excess of $18B. There was only a small centralized sourcing effort which, due to a lack of corporate Spend Visibility, was unable to address spend in aggregate and leverage its full size in negotiations.

**Objectives:** With almost entirely new management looking to transform Tyco from a holding company to an operating company, centralized Spend Management within supply chain became a focus. The first far-reaching, corporate initiative within supply chain was the Tyco Spend Data Warehouse. Tyco's goal is to leverage the company's incredible buying power by coordinating efforts across the business segments to generate significant savings in purchasing.

**Approach:** Having remarkably complex data issues but desiring maximum coverage, minimum time to results and a behind-the-firewall solution, Tyco opted for a phased approach using the Ariba Visibility solution.
• Phase I: Ariba Spend Visibility Managed Services to conduct first pass Spend Visibility service and leverage the Ariba expert systems and labor without waiting for software/hardware installation. The Tyco data sources were broken further into four batches representing different segments of their business. In practice, hard-to-get data sources tended to slip into subsequent batches so that laggards did not jeopardize the speed of delivery.

• Phase II: Transition of Ariba Analysis to behind-the-firewall, where it could be customized more extensively as desired and integrated with other Spend Management applications. Data enrichment still delivered as a service by Ariba.

• Phase III: Transition to a full self-service model, bringing Ariba Data Enrichment behind-the-firewall. Prior to this point, all Tyco-specific classification information such as GL & Material codes, direct materials descriptions and any suppliers not originally in the Ariba database will have been incorporated into the technology so Tyco resources need only maintain and build on this rule-set. Tyco will continue to benefit from improvements to Ariba’s knowledge base via quarterly merges of all new information added from other customer engagements.

Results: By Spring of 2005, Tyco should complete Phases I & II. Results already achieved or expected to be achieved by that time include:

• $18B+ of spend, including direct and indirect, captured for analysis for decision-makers throughout the company. 200 source systems of spend data and 20M+ lines of spend in one spend data warehouse with many different GL coding schemes and/or Material Coding schemes.

• $16B+ of that spend classified for granular commodity information and enriched for robust supplier information.

• 300+ users in six major segments of Tyco and 20+ countries exploring their common spend data through an easily accessible web-based Ariba Analysis instance.

• Classification delivered in a Tyco-specific commodity taxonomy tuned by a centralized corporate authority and seen through 20+ standard reports built on Ariba’s best practices in Spend Analysis.

• A repeatable methodology for loading new buys on a monthly basis and applying the built rule-set against those buys within days of loading.
Summary Table

The following table summarizes the key factors that Ariba recommends your firm consider in selecting its path to visibility.

<table>
<thead>
<tr>
<th>Approach</th>
<th>Advantages</th>
<th>Disadvantages</th>
<th>Company Characteristics appropriate for</th>
</tr>
</thead>
</table>
| Manual        | ▪ Lower initial cost  
▪ Limited budget approvals                                                 | ▪ Inconsistent classifications  
▪ Limited enrichment  
▪ Not repeatable  
▪ Does not scale                                              | ▪ Limited spend  
▪ Restricted budget  
▪ Short-term outlook                                              |
| Managed Service | ▪ Quick ROI  
▪ Minimal internal resource needs  
▪ Minimal internal commitment  
▪ Best practices imbedded in vendor process                      | ▪ Continual subscription fees  
▪ Limited customization  
▪ Limited/no integration with other applications  
▪ Never “own” data  
▪ Data security                                                   | ▪ Poor IT-Procurement collaboration  
▪ Desire to focus on core competency  
▪ Want to implement an effective process, not customize to fit existing |
| Self Service  | ▪ Maximum insight into own spending  
▪ Minimal reliance on third parties  
▪ Data security  
▪ Maximum ability to customize  
▪ Maximal integration with other spend management applications | ▪ Slowest approach  
▪ Requires significant, up-front organizational commitment  
▪ Requires permanently dedicated resources                        | ▪ Close IT-Procurement relationship  
▪ Want to “own” data  
▪ Want to customize solution to existing processes                 |
| Phased Approach | ▪ Quick ROI  
▪ Eventually “own” data  
▪ Eventual maximal integration with other applications  
▪ Eventual customization                                      | ▪ Requires permanently dedicated resources                           | ▪ Need quick results  
▪ Interested in integrating with future applications  
▪ Close IT-Procurement relationship  
▪ Want to “own” data                                                  |
Pitfalls

The previous sections should provide some insight into the right approach for your firm, or at least what questions to ask to determine the optimal approach. No matter what approach is taken, there are a number of realities in Spend Visibility that should be addressed. Behind most of these realities is the point that there is no "silver bullet" with regard to Spend Visibility. While new technologies have greatly enhanced the ability of firms to gain visibility into their spend, the process still looks for a good amount of domain expertise and local knowledge.

Logical, software-based solutions that are effectively deployed will return tremendous value, but none will deliver 100 percent visibility or require no effort on your part. The nature of the challenges, with dirty or missing data and maverick spending, prevents firms from achieving perfection under even the best circumstances.

There are, however, common pitfalls that can be avoided to maximize the return on your investment no matter the approach you select. The following are those that Ariba has found to be the most common or pose the greatest threat to a firm’s success.

Service Levels

When a service approach is taken, it is critical that companies discuss and document service levels. Companies should be wary of any vendor that proposes to provide 100 percent Spend Visibility, or even 95 percent if they haven’t seen your data. At the same time, clarifying the minimum service levels guaranteed will help set common expectations among all stakeholders. It is very simple for a vendor with no guaranteed service level agreement (SLA) to find some "unexpected" complexity in your data that explains the poor data quality returned or the unexpectedly long project time. Setting a clear definition and minimum service level in the below areas will ensure that the vendor understands the deliverables and overcomes any complexities to meet them.

On the flip side, companies should understand that vendors may request significant information prior to proposing a price or project schedule so they can set realistic expectations. If such information is not provided, a vendor cannot be expected to guarantee a high service level or specific timeline. The following are the critical SLA terms that should be addressed:

- Coverage: Percent of spend classified to the determined accuracy level
  - Percent Total Spend: While there is the temptation to ask for 90-plus percent coverage by spend, Ariba has found the optimal starting number to be 80 percent where the cost of enrichment is justified by the value gained. A rule of thumb is that the cost of delivering to 80 percent
is doubled to go to 90 percent and quadrupled to go to 95 percent. Doubling the cost only to gain visibility on 10 percent more of spend makes an ROI justification more difficult.

- Percent by Source System: Only guaranteeing a percentage of total spend will leave certain source systems with low coverage, particularly in firms with large numbers of source systems. Guaranteeing a minimum coverage per source system in addition to a total percent coverage will ensure that no organizational unit finds itself with meaningless spend data. Note that this number will need to be significantly lower than the percentage of total spend. Ariba has found 50 percent to be a realistic and valuable target.

- Accuracy: Ensure an accuracy level is connected to the coverage terms. If only qualitative (e.g. "High" confidence or accuracy), ensure it corresponds to a quantitative value (e.g. 90% accuracy). Keep in mind that measurement of accuracy can be subjective and must be tested using statistical samples.

- Project Duration: Ensure milestones, along with any dependencies, are documented. Extraction of data is a key dependency for the remainder of the project and probably more under your control than your vendor's.

- Reclassifications: Ensure the right to correct data is clearly defined. In particular, rights to retroactive versus future reclassifications should be agreed upon.

- Refresh cycle: Frequency and timing of refreshes should be tuned to the cycle of the company and where it will be used. For feeding the sourcing "pipeline" with savings opportunities, new data isn't needed more often than twice a year, but to measure compliance, a more frequent monthly or quarterly refresh is required to recognize problems quickly.

Even in a self-service (software) approach, companies should consider SLAs. In those cases, the SLAs should cover implementation, training and support.

**Ignoring the 80 / 20 Rule**

As mentioned in the coverage section of the SLA, the top 80 percent has proven to be the best starting point for Spend Visibility. Many firms want to make the most informed decisions and therefore capture all spend in their analysis. The problem is that this approach forces a significant tradeoff in the speed of implementation (and hence ROI) for marginal incremental value.
Therefore, Ariba encourages companies to seriously consider if the extra time and cost involved in starting off with full coverage is worth the incremental value. Be particularly wary of vendors that propose 90-plus percent coverage immediately without considering your firm’s goals. Ariba recommends to most customers that they start with approximately 80 percent of spend so that they can start identifying opportunities. With a software approach to processing, 100 percent of the data is processed anyway but only 80 percent is certified as accurate. The other "un-certified" spend will still have some, less-trustworthy results that can be targeted in subsequent mini-projects that should be individually justified.

**Collaborative Effort**

Companies must be prepared to commit resources to ensure a successful visibility project, regardless of the approach selected. Even with fully managed services, a company should as a minimum plan on devoting end-user time to attending analytical training, commodity manager time in refining classifications, and IT time writing the necessary, repeatable data queries from each source system. Working with vendors during the evaluation process to fully understand the internal effort that will be required is essential. Doing so will help maintain a collaborative relationship once work begins and will help internal planning and adoption. Again, no solution provides a "silver bullet", so both the internal project team and the vendor team will need to be willing to get their hands dirty while they clean and prepare the data.

**Opportunities for Growth**

Spend visibility is nearly always approached one step at a time. Not all source systems get into the first phase so they are put in the second. Once all spend is visible, CPOs turn to the processes involved in spending money and want to see reporting on any inefficiencies. Then, they want visibility into everyone’s performance (buyers and suppliers). Next, your company acquires another company and more source systems are added. Finally, new applications for Spend Management come online and need to be reported on. All of these possibilities should drive your requirements for an Analytical system that is both highly (and easily) configurable and easy to use in the context of Spend Management.
Total Cost of Ownership

Without a clear understanding of the different customer requirements for each type of visibility approach, it is tempting to simply compare prices for acceptable vendor solutions. This can result in drastically underestimating the total cost of ownership (TCO), which should be the key cost factor in your decision-making process. This would also impart error in any ROI calculations. It is most critical when comparing different types of solutions (e.g. installed software versus a managed service, where the managed service pricing is likely to be much higher but minimizes other, internal costs). The following important elements of TCO should be considered:

- Hardware and network requirements for installed software
- Additional software required (database, web-server, ETL)
- Consultant fees
  - Software installation
  - Integration
  - Data extraction
- Differing personnel time requirements for different solutions
  - Training
  - Data extraction, transformation and loading
  - Any data cleansing and enrichment work done in-house
  - Commodity expert review of data classifications
- Integration costs from multiple vendor solutions
  - Initial integration effort
  - Periodic effort when source systems of portions of the solution itself are upgraded
**Conclusion**

An effective Spend Visibility program is absolutely critical to Spend Management but can be difficult to successfully implement. Knowing what types of approaches exist, the benefits and disadvantages of each, and the pitfalls to avoid can make the difference between success and failure. Further understanding that full value is achieved only when visibility is gained into spend, processes and performance should further help you plan your program. We hope this guide has helped you identify what approach is best suited to your organization or what additional information you need. With some effort and commitment, you too can have clear visibility through your entire organization.

If you have feedback on this paper or would like to discuss any points herein, please contact Alex Saric at asaric@ariba.com, (908) 333-2385 or Paul Noel at pnoel@ariba.com, (650) 390-1812.

If you would like to discuss how Ariba Visibility can help you overcome your Spend Visibility challenges, please contact Ariba at 866-772-7422.
Glossary of Terms

**Accuracy** - Percent of processed results that are correctly classified. An essential component of any SLA that should be tied to a level of coverage.

**Coverage** - Percent of spend processed. Can be defined at an aggregate level or by source system or file. An essential component of any SLA that should be tied to accuracy levels.

**Data Classification** - Assignment of commodity codes/names to spend data to indicate what was purchased. Common commodity code structures include UNSPSC, eClass and the Ariba Sourcing Taxonomy.

**Data Enrichment** - Refers to the combination of data classification and supplier enrichment.

**ETL** - Software that Extracts data from source systems, Transforms it into a different format and Loads the transformed data file into a different destination.

**Performance Visibility** - The ability to analyze supplier and buyer performance. Supplier performance includes qualitative and quantitative (i.e. delivery times) measures. Buyer performance involves purchasing via authorized systems in accordance with contracts and firm policies.

**Process Visibility** - The ability to analyze sourcing and procurement processes to determine processing times and identify bottlenecks.

**Refresh** - Subsequent processing of data from same source systems but for a new time period. With automated solutions, involves far less effort than initial processing of data.

**Service Level Agreement (SLA)** - Agreement between a vendor and customer. Typically defines such components as project timeline and milestones, system uptime as well as level of coverage and accuracy in processed data.

**Spend Visibility** - The ability to view historic spend across multiple dimensions, including supplier, commodity and geography and with sufficient detail and accuracy to drive effective decision-making

**Supplier Enrichment** - Adding supplier information (new fields) that did not exist in original data. Common types of enrichment fields include parent company, revenues, SIC codes and credit ratings.

**Total Cost of Ownership (TCO)** - An effective measure of how much a particular solution or approach will actually cost. Useful for comparing options. Accounts for all cost components, not just license or service fees. For a Spend Visibility project, typically include such elements as hardware costs, training time, and integration costs/effort.