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Executive Overview

Spend analysis is the process of analyzing corporate expenditures to identify saving opportunities and monitor compliance with contracts and corporate policies. Statistics show that organizations with capabilities to make data-driven purchasing decisions can save millions of dollars. On average, companies save between .25 – 1% on total spend per year. That equates to a yearly savings of $2.5 to $10 million for a company with $1 billion in spend.¹

Spend analysis requires well-classified data for best results and there are barriers to aggregating enterprise-wide spend data; data is captured and stored in multiple systems. Frequently the systems utilize different coding structures to categorize expenditures and these coding structures are designed to aid financial reporting and are inadequate for performing good spend analysis.

This white paper describes how an engineered system from Oracle eliminates the barriers and helps organizations realize significant cost savings while lowering risk and increasing compliance through the use of ongoing spend analysis.

Introduction to Engineered Systems

Oracle’s engineered systems combine best-of-breed hardware and software components with game-changing technical innovations. Designed, engineered, and tested to work best together, Oracle’s engineered systems can power the cloud or streamline data center operations to make traditional deployments even more efficient. The components of Oracle’s engineered systems are preassembled for targeted functionality and then—as a complete system—optimized for extreme performance. By taking the guesswork out of these highly available, purpose-built solutions, Oracle delivers a solution that is integrated across every layer of the technology stack—a simplicity that translates into less risk and lower costs for your business. Only Oracle can innovate and optimize at every layer of the stack to simplify data center operations, drive down costs, and accelerate business innovation.

¹
Oracle Exalogic

Oracle Exalogic is an Engineered System on which enterprises deploy Oracle business applications, Oracle Fusion Middleware or third-party software products. Exalogic comes pre-built with compute nodes, memory, flash storage and centralized storage; all connected using InfiniBand in a high redundancy architecture delivering five-nine availability, with fault tolerance and zero-down-time maintenance.

Exalogic dramatically improves performance of Oracle Applications, Fusion Middleware and 3rd party applications without requiring code changes and reduces costs across the application lifecycle, from initial set-up to on-going maintenance, as compared to conventional hardware platforms. Oracle has made unique optimizations and enhancements in Exalogic firmware, Exalogic software, and in Oracle’s middleware and Oracles applications. These include on-chip network virtualization based on near zero latency Infiniband fabric, high-performance Remote Direct Memory Access, workload management in Oracle Weblogic server and optimizations in Oracle Coherence and Oracle Traffic Director. Exalogic includes support for a highly optimized version of the Oracle VM, which significantly outperforms comparable virtualization solutions and is an ideal consolidation platform for Oracle Applications. Templates to simplify install, deployment and configuration of Applications on Exalogic are available.

Oracle Exadata Database Machine

Oracle’s Exadata Database Machine is Oracle’s database platform delivering extreme performance for database applications including Online Transaction Processing, Data Warehousing, Reporting, Batch Processing, or Consolidation of mixed database workloads. Exadata is a pre-configured, pre-tuned, and pre-tested integrated system of servers, networking and storage all optimized around the Oracle database. Because Exadata is an integrated system, it offers superior price-performance, availability and supportability. Exadata frees users from the need to build, test and maintain systems and allows them to focus on higher value business problems.

Exadata uses a scale out architecture for database servers and storage. This architecture maintains an optimal storage hierarchy from memory to flash to disk. Smart Scan query offload has been added to the storage cells to offload database processing. Exadata implements Smart Flash Cache as part of the storage hierarchy. Exadata software determines how and when to use the Flash storage for reads and write as well as how best to incorporate
Flash into the database as part of a coordinated data caching strategy. A high-bandwidth low-latency InfiniBand network running specialized database networking protocols connects all the components inside an Exadata Database Machine. In addition to a high performance architecture and design, Exadata offers the industry’s best data compression to provide a dramatic reduction in storage needs.

**Oracle Exalytics**

As analytic applications become more sophisticated and calculation-intensive, the use of mobile BI expands, user adoption increases, and data volumes explode making the need for speed and efficiency more important than ever. In-memory technology can dramatically accelerate analytic performance. Oracle Exalytics In-Memory Machine is the industry’s first engineered system for analytics that combines market leading BI foundation, in-memory analytics software, and best-in class hardware engineered and optimized to work together to deliver extreme performance for Business Intelligence and Enterprise Performance Management applications. As a result, users can visually navigate and drill into information at the speed of thought, without limits on the complexity of their questions or the volume of the underlying data. Exalytics drives a new class of smarter and more powerful analytic applications that simply weren’t possible using conventional BI software and generic hardware configurations.

Oracle Business Intelligence Foundation running on Oracle Exalytics has been specially enhanced to take advantage of large memory, processors, concurrency, storage, networking, operating system, kernel, and system configuration afforded by the Oracle Exalytics hardware. Oracle TimesTen for Exalytics has been specially enhanced for analytical processing at in-memory speeds. With lightening fast scan speed of up to 100 million rows/second and up to 10x columnar compression, TimesTen for in-memory analytics delivers faster reports & dashboards for departmental as well as enterprise wide consumption.
Engineered Systems: Exalogic, Exadata, Exalytics; Applications, Database and Analytics. The fastest, easiest path to unbeatable application performance

Oracle’s SPARC SuperClusters

Similar to Engineered Systems such as Exadata, Exalogic, Oracle E-Business Suite can be deployed on Oracle’s SPARC SuperCluster to achieve high availability, performance, scalability and environment consolidations. Here is a brief description of Oracle’s SPARC SuperCluster’s technical capabilities.

Oracle’s SPARC SuperCluster is the world’s most efficient multi-purpose engineered system, delivering extreme efficiency, cost savings, and performance for consolidating mission critical applications and rapidly deploying cloud services. Oracle’s SPARC SuperCluster represents a complete, pre-engineered, and pre-tested high-performance enterprise infrastructure solution that is faster and easier to deploy than a collection of individual database and application servers. The system combines innovative Oracle technology—the computing power of Oracle’s SPARC servers, the performance and scalability of Oracle Solaris, the Sun ZFS Storage Appliance, the optimized database performance of Oracle Database accelerated by Oracle Exadata Storage Servers, and a high-bandwidth, low-latency InfiniBand network fabric—into a scalable, engineered system that is optimized and tuned for consolidating mission-critical enterprise applications.
Oracle’s SPARC SuperCluster provides both the capacity for growth, as well as the fine-grained server virtualization needed to isolate individual application components. Deployment speed, application performance, and availability can all be optimized with the multiple layers of enterprise application infrastructure consolidated onto a high-performance, highly available SPARC SuperCluster system. Designed as a pre-configured, pre-tested, and ready-to-deploy SPARC SuperCluster engineered system, the solution provides a complete and optimized infrastructure solution for applications, built around robust compute, networking, storage, virtualization, and management resources. The result is a system that is orders of magnitude easier to manage, and up to five times faster to deploy than alternatives, all while occupying considerably less real estate requiring less power. Furthermore, the SPARC SuperCluster system provides full built-in redundancy resulting in a highly reliable infrastructure without single point of failure. An issue with one component will not impact other components of the system offering true isolation. Customers can consolidate multiple Oracle E-Business Suite environments with minimum disruption, without fear of performance degradation, and the ability to achieve required service levels.

Technical Benefits of Oracle’s Engineered Systems

Overview

Internal benchmarking indicates that Oracle E-Business Suite running on Oracle’s Engineered Systems performs 3 to 10 times faster for forms and self service applications depending upon the concurrency load profile. And linear scaling allows for very large deployments and multiple applications to run simultaneously while maintaining consistent response times. Oracle’s Engineered Systems are architected to deliver maximum availability, high performance, and scalability helping Oracle E-Business Suite customers to consolidate environments, and reduce server footprint resulting in an overall reduction in cost of application ownership.

Here are some of the technical benefits delivered by Engineered Systems:

- Oracle E-Business Suite applications consists of many batch processing programs that create large workloads. These workloads are highly CPU intensive. High concurrency of these workloads requires systems with large memory capacity with large Systems global area (SGA) and Program global area (PGA) capable of processing high speed disk input/output (I/O). Oracle’s Engineered Systems are architected to deliver these superior technical capabilities to manage such large workloads.
Engineered systems can handle twice as many users per core compared to other servers delivering the scalability required to add more application users during growth and expansion.

Linear Scaling easily supports very large deployments.

Resource Manager can help consolidation of database and application environments by controlling CPU usage, managing CPU contention via instance caging, controlling disk I/O usage, and managing contention via IORM’s inter-database resource plans. Customers can achieve higher throughputs as more transactions can be processed using single Exadata core compared to other servers.

Exalogic has been engineered to leverage a technique known as Single-Root I/O Virtualization to eliminate virtualization overhead and deliver maximum performance and scalability. Mission-critical server virtualization offers a whole new level of consolidation where multiple virtual machines are sharing a single physical server in order to maximize the utilization of server hardware, while minimizing associated cost.

Oracle VM template for Exalogic reduces installation and configuration time and allows rapid deployment of Oracle E-Business Suite applications.

Oracle E-Business Suite customers can load balance web and forms servers, configure parallel concurrent processing and configure Oracle RAC and Oracle Data Guard for high availability.

Oracle Enterprise Manager Cloud Control (EM) helps with Exadata manageability and provides a composite view of all health indicators of a cell or cell group to diagnose and troubleshoot performance problems efficiently.

Oracle E-Business Suite customers will benefit from using following unique features of Exadata Database Machine:

Exadata Smart Flash Cache

Exadata Smart Flash Cache uses Flash memory to dramatically reduce the time to read and write database and log records. The intelligence in Smart Flash Cache transparently moves active database blocks from disk to flash in real time, thus ensuring that "hot" data is in Flash memory when the next access occurs. Blocks that should not be in Flash are similarly recognized, maximizing the amount of space in Flash for active data.
Internal bench marks for Oracle E-Business Suite have shown following results as a result of Smart Flash Cache:

- Average I/O latency reduced by 58% and no special tuning is required to achieve I/O performance improvement.
- Log file sync events improved by 5% and no special tuning is required to achieve log file sync event improvements

Exadata Smart Scan

Exadata Smart Scan speeds up data-intensive queries by leveraging the processing power of Exadata Storage Servers to scan and filter out results. By moving queries to storage instead of moving the data to the database servers, long-running reports often complete 10 times faster than conventional systems.

InfiniBand

The use of InfiniBand as the networking fabric within Exadata ensures the lowest latency for messages and the highest bandwidth for data transfers. High-speed transactions as well as data-intensive queries and reports reap the benefits from InfiniBand. Oracle E-Business Suite benefits resulting from InfiniBand are:

- 30-40% lower CPU utilization and 100% or more throughput compared to Gigabit Ethernet
- 20% improvement in online transactions response times
- Easier scaling of E-Business Suite online transactional processing through low latency

Exadata Scale-Out Storage

Exadata Scale-Out Storage enables the full performance of Exadata to be realized against large and growing databases, without fear of bottlenecks. As the database size grows and storage capacity is added to Exadata, storage performance and networking bandwidth scale in equal proportion. As a result,

- Backups and Clones can be executed at a rate of 20TB/hour
- Faster incremental backups can be performed
Oracle E-Business Suite customers benefit from using following unique features of Exalogic:

Exalogic Exabus

Applications running on Exalogic utilize Exabus, the underlying Infiniband fabric, which provides low latency and high throughput eliminating I/O bottlenecks in every application layer. Applications components are typically deployed in more than one server and Exabus provides low latency for I/O across nodes on same Exalogic rack. Access to ZFS storage device over Exabus greatly reduces latency for log file writes and other file access operations. For applications running on Exalogic and accessing the database tier on Exadata, Exabus delivers faster I/O, reduces CPU usage on both the mid-tier and DB-tier and providing higher connection pooling efficiency.

Oracle VM for Exalogic

Exalogic Oracle VM can sub-divide a physical compute node into multiple virtual machines to increase application deployment efficiency while maintaining application performance. Oracle VM has been engineered for tight integration with Exalogic Exabus I/O backplane using a technique called Single Root I/O Virtualization (SR-IOV) ensuring Oracle VM significantly outperforms comparable hypervisors from other leading vendors. The benefit of this approach is unmatched application performance. In an Exalogic configuration, the impact of virtualization on application throughput and latency is negligible.

References

Oracle Exadata Database Machine Brochures and Data Sheets
Oracle Tech Network Oracle Exadata Database Machine
Oracle Exalogic Elastic Cloud Overview
Overview of Spend Analysis

Spend analysis is the process of collecting, classifying, and analyzing spend data in an effort to identify cost savings and contract compliance opportunities. Spend analysis enables decisions to be based on actual tuned procurement data, which enables high impact decisions. It is an integral part of spend management, the way companies control and optimize the money they spend.

Benefits of Spend Analysis

A wide variety of business opportunities can be uncovered with good spend analytics. For example:

- **Buyer leverage**: Buyer leverage is the amount of bargaining power that buyers have when purchasing goods and services. Spend analytics provides information about the quantity of items purchased, the relative scarcity or abundance of the product, the availability of product substitutes, and many other factors. With this information, the buyer negotiates better prices and more favorable contract terms.

- **Supplier rationalization**: Where companies use many suppliers, there can be benefits to negotiating contracts with a select few. By directing more spend toward a given supplier, buyers negotiate better discounts, increase collaboration, decrease administrative costs, and better control risk.

- **Reduce “maverick” spend**: “Maverick” spends is the process whereby requestors buy items or services that are outside the preferred process or system. A “maverick” purchase typically results in an individual or department buying an item in an ad-hoc fashion that results in paying a 20% premium for that item. Identifying these purchases and directing them to approved suppliers quickly saves money.

- **Reduce inventory costs**: Analytics provide important insight into inventory purchases and safety stock requirements. Analytics also enable the evaluation of holding cost to obtain a clear understanding of the real savings from bulk purchases.

- **Reduce transportation costs**: Transportation costs can be a significant part of a company’s overall spend. As noted with suppliers, transportation carriers should be rationalized to negotiate better rates. By reducing the number of carriers, the amount of work offered to the remaining carriers increases and more optimized trips are revealed. By offering vendors a larger volume of work, the carrier should be able to offer lower rates across all routes.
• **Increase process efficiencies:** Automating sourcing, procurement, and payment processes greatly improves the efficiency of paper based and manual processes. Process savings are measured by:
  - How long it takes to process a purchase order
  - How many individuals need to touch the purchase order before it can be sent
  - How long it takes to reconcile and pay the supplier.

Operational analytics provide procurement with tools to measure its performance to internal customers.

**Barriers to Spend Analysis**

Despite the many benefits of spend analysis, many organizations find it difficult to overcome the challenges of obtaining good spend visibility. Whether enterprises are using a single ERP system or many, spend data typically resides in multiple disparate locations with different data structures and lacks sufficient detail for good analysis.

To obtain the benefits of spend analytics, spend data must be consolidated, cleansed and accurately categorized with a uniform coding structure that provides the appropriate level of granularity to support all desired levels of reporting and analysis. In addition, the process must be efficient and repeatable for highest impact, enabling trends to be identified and acted upon before they are weeks or months old.

Another barrier is the presentment of data to the end users. To be well understood, the data must be presented in a user-friendly dashboard that not only provides well designed pre-built reports but also enables users to perform ad-hoc queries, slice and dice information by multiple dimensions, and maintain custom reports and views for future use.

Efforts to address these challenges have primarily relied on using classification service providers; however, this approach has had limited success for the following reasons:

• **Data consolidation:** Regardless of whether spend analysis is done in house or provided by a service provider, spend data must be collected from the various systems and consolidated in a standardized format. Extracting the data from disparate locations can be difficult and time consuming.

• **Data ownership and visibility:** When classification services are used, the cleansed data is shared with the service provider. Service provider models typically expect customers to contribute their data to a central knowledge base to be used to classify other customer’s data. In addition, access to the reports may be limited to the views provided by the service provider’s own dashboards preventing custom analysis which might yield the most value. Therefore, benefits are limited.
• **Expense:** Service providers charge fees for cleansing and classifying data and also may charge a subscription fee to access the analytic dashboards. The subscription fees are generally higher than the cost of maintaining an in-house solution. Moreover, incremental updates require additional payments to the service firm and are usually covered by a long-term contract.

• **Data Security:** Many organizations are not willing to assume the risk inherent in sharing their spend data with an outside service for two reasons. First, pricing information shared with a third party might be a direct violation of confidentiality promised in supplier contracts. Second, and critically important, sharing pricing with external parties might expose the enterprise to competitive vulnerability.

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**Oracle’s Engineered Solution**

Oracle Spend Classification and Oracle Procurement and Spend Analytics delivered on an Exadata machine overcome the obstacles to spend analysis. The solution is a data warehouse product offering that includes the following components:

- **Oracle Exadata Database Machine:** This includes Sun database server nodes, Sun Exadata Storage Server Cells, and a high bandwidth InfiniBand network.

- **Oracle Database Enterprise Edition 11g:** Oracle’s market leading database for data warehousing.

- **Oracle Business Intelligence Enterprise Edition (OBIEE) 11g:** A middleware solution that includes the BI Server containing the Common Enterprise Information Model. The BI Server provides the centralized business model view. Front-end components in OBIEE 11g provide ad-hoc query and high fidelity reporting.

- **Oracle Spend Classification:** A module in the Oracle Business Intelligence Applications family of products that helps procurement departments categorize spend into a target taxonomy.

- **Oracle Procurement and Spend Analytics:** Provide pre-defined performance indicators that are displayed in pre-built reports that provide comprehensive visibility into every aspect of the company’s procurement, including raw materials procurement, supplier performance, and spend.
How Oracle’s Solution Eliminates the Barriers

The following barriers are addressed by the Oracle solution:

- Data consolidation
- Spend classification
- Data reporting
- Cost of ownership
- Security

Barrier One: Data Consolidation

Oracle Business Intelligence Applications (BI) was developed with the expectation that data resides in multiple places and that enterprises use multiple packaged and custom-built operational systems. The BI Applications are delivered with prebuilt adapters for Oracle applications including Oracle E-Business Suite and provide universal adapters to extract, transform, and load (ETL) data from non-Oracle or Legacy applications.

Achieving good performance during the ETL process depends on where the data to be loaded resides and how it will be loaded into the database. The area where files are stored prior to being loaded is commonly referred to as the staging area. The overall speed of the load will be determined by (A) how quickly the raw data can be read from the staging area and (B) how fast it can be processed and inserted into the database.

Using the Oracle Exadata Database Machine data is staged in an Oracle Database File System (DBFS) stored on the Exadata storage cells. Much of the complex data transformation and data quality processing will occur in this layer. Given that tables in the staging area are normally segregated from the query part of the data warehouse, business users are not impacted by the ETL process.

Using the universal adapters, the ETL processes can be automated at reduced cost and effort. By automating the processes with use of the staging area to reduce impacts to business users, and high performance from the Exadata machine, spend data can be updated on a regular, periodic basis. With up to date information, buying organizations can identify issues and respond to demand or market changes much quicker. Interrupting a trend immediately, as
opposed to waiting until many transactions have taken place, protects contract relationships and cost savings. If an organization has repeated ad-hoc purchases, corrective action can be taken. If commodity indices rise or fall then purchasing strategies can be re-evaluated.

Barrier Two: Spend Classification

Data mining is the process of analyzing data from different perspectives and summarizing it into useful information. Oracle Spend Classification uses Oracle Data Mining for machine learning and other predictive techniques to automatically categorize spend.

Oracle Data Mining (ODM) implements a variety of data mining algorithms inside the Oracle relational database. These implementations are integrated directly into the Oracle database kernel, and operate natively on data stored in the relational database tables. This eliminates the need for extraction or transfer of data into standalone mining/analytic servers. The relational database platform is leveraged to securely manage models and efficiently execute SQL queries on large volumes of data. Models are created and stored as database objects, and their management is done within the database - similar to tables, views, indexes and other database objects.

In data mining, the process of using a model to derive predictions or descriptions of behavior that is yet to occur is called "scoring". In traditional analytic workbenches, the data must be moved from relational tables into an analytical workbench to be scored. ODM simplifies model deployment by offering Oracle SQL functions to score data stored right in the database.

This scoring process, however, can be CPU intensive. When deployed on an Exadata machine, Exadata Storage Server software can push this scoring to the CPUs on the Storage Server, eliminating the need to use resources on the database server to perform this task. Internal comparisons have shown that offloading scoring can deliver responses that are up to ten times faster than using database server resources for the operation.

Barrier Three: Data Reporting

Oracle Procurement and Spend Analytics includes pre-built data models, more than 100 metrics, and best practices - enabling organizations to implement more quickly, with less risk, and at a fraction of the cost required to build traditional business intelligence (BI) solutions.
Oracle Procurement and Spend Analytics provide dashboards for:

- **Spend analysis**: Provides visibility to spending patterns for both direct and indirect spend, enabling users to identify and realize the savings opportunities, with the ability to do the spend analysis by commodities, suppliers, supplier locations, buying locations, business units, cost centers, buyers and contract usage.

- **Supplier performance analysis**: Enables organizations to have a complete picture of the performance of their suppliers, including complete supplier scorecards, supplier price performance, delivery performance, product receipt quality, on-time payment ratings, payment activity and volume and payments due / overdue analysis.

- **Procurement performance analysis**: Enables organizations to have a complete picture of the performance of their suppliers, including complete supplier scorecards, supplier price performance, delivery performance, product receipt quality, on-time payment ratings, payment activity and volume and payments due / overdue analysis.

- **Employee expense analysis**: Delivers understanding of how the money related to travel and expenses is being spent through creation of a complete picture of Employee Expenses, including approval cycle times, expenses by expense type, and expense report status.

In addition, the Oracle BI platform provides robust ad-hoc, query and reporting capabilities. All dashboards support drilldown to view transaction details which can help users identify exceptions and anomalies. End users access and analyze data without the assistance from the IT organization.

Performance of the dashboards and ad-hoc queries have a direct impact on user acceptance, application use and therefore benefits realized. An add-on component to the Exadata machine is Oracle Exalytics. The Oracle Exalytics In-Memory Machine is a single server that is optimally configured for in-memory analytics for business intelligence workloads and includes powerful compute capacity, abundant memory, and fast networking options.

The Summary Advisor feature of Oracle Exalytics monitors Business Intelligence usage patterns, analyzes them, and recommends the optimal data mart for best overall performance improvement. The Summary Advisor improves efficiency of storage so that most frequently used data can be accessed in the fastest optimal way. Recent, or most common, query results are stored and re-written within the cache. This reduces the movement of data and greatly speeds query response.
The main features are:

- Automatically cache results
- Re-write queries on the cache
- Decides what gets stored in-memory
- Adapts to changes in analytic workload
- Optimizes performance for best responsiveness
- Tools for user to initiate caching and pre-seeding

Oracle Procurement and Spend Analytics are available today for use in conjunction with Oracle Exalytics without application changes. The combination enables users to extract relevant business insight from massive values of data at the speed of thought.

Barrier Four: Cost of Ownership

Traditional business intelligence solutions are home-grown and costly, require many months to implement, and are difficult to modify as business requirements change. In contrast, Oracle Business Intelligence Applications are pre-built solutions designed for faster deployment at a lower cost, lower risk, and with better business results. According to leading integrators, custom build applications costs approximately three times more to deploy and typically have a longer lead time to gather requirements. It is far easier for business users to critique a dashboard and select information to be displayed than design a solution from scratch.

Oracle Business Intelligence Applications includes pre-built data models, more than 100 metrics, and best practices based on Oracle’s experience across hundreds of CRM and ERP automation implementations. In addition, Oracle’s robust enterprise analytics platform enables users to easily customize and extend the application without the need for programming. The intuitive, Web-based user interface requires very little training and ensures rapid end user adoption.

Many companies prefer to maintain up to ten years of data in their data warehouse. This leads to added storage costs as the size of the database grows. Compressing data can provide dramatic reduction in the storage consumed. The Exadata Storage Server provides a very advanced compression capability called Hybrid Columnar Compression (HCC). Hybrid
Columnar Compression enables the highest levels of data compression and provides tremendous cost-savings and performance improvements due to reduced I/O. Typical storage savings range from 10x to 15x. On conventional systems, enabling high data compression has the drawback of reducing performance. Because the Exadata Database Machine is able to offload compression overhead into large numbers of processors in Exadata storage, most workloads run faster using Hybrid Columnar Compression than they do without it.

Barrier Five: Security
Security issues are eliminated by deploying an in-house solution. Data never leaves the organization’s secure network. For internal users, Oracle Procurement and Spend Analysis ETL adapters automatically inherit Oracle EBS application security, ensuring that each user has access to the information granted to them only and relevant to their business function.

Summary
Oracle Spend Classification and Oracle Procurement and Spend Analytics deployed on an Engineered System provides a cost effective and high performance solution for spend management. Data collection and classification processes can be automated enabling spend data to be refreshed periodically at any desired frequency. Pre-built dashboards enable faster deployment at a lower cost, and hardware and software engineered together ensures the solution is not only high performing, but is also scalable to accommodate growth.

By classifying spend and performing on-going spend analysis, companies can increase profit margins by cutting costs and lower risks by ensuring compliance to contract and corporate policies. Companies gain strategic advantages by measuring and monitoring supplier performance and developing partner relationships with key vendors.