McKnight Consulting Group

Embracing Analytics as a Competitive Strategy for a Midmarket Organization

Research Report

By
William McKnight & Jake Dolezal

www.mcknightcg.com

TABLE OF CONTENTS

The use of analytics will define the successful midmarket business of the next decade, just as it will define the successful larger organization in this information age.

The past decade has seen rapid change in the business climates with an explosion of global competition and economic uncertainty. Despite this, many midmarket companies have thrived by using their size and agility as a competitive advantage. Certainly they have fewer resources at their disposal than large corporations who have the capital to invest large sums in IT. However, small yachts can turn and adjust their course much quicker than large cruise ships. The same came be said for midmarket companies.

The most successful organizations are ones that can react the quickest to (or even proactively anticipate) changes in the market place. Midmarket companies can take advantage of their smaller size by being more agile and quicker to change, or even reinvent themselves, to respond to the market.

Most organizations, regardless of size, struggle with how to best utilize and manage their important asset of data. However, a midmarket company can turn their data challenges into assets by matching the right technology and sidestep many of the information technology growing pains other companies have faced in years past. This white paper will discuss these challenges and suggest some strategies and solutions to turn midmarket data into a working asset.

Provided By

William McKnight

And

Jake Dolezal

www.mcknightcg.com

Need For Data Under Management In Midmarket Companies

Analytics are a Key Differentiator

Data stores are now so commonplace and ubiquitous that organizations take them for granted. The ability to capture, store and even report on data effectively is no longer a differentiator. The question is 'Does a midmarket business use its data beyond everyday operations and reporting?' If not, it is missing an incredible opportunity.

Analytics is the activity of discovering and communicating meaningful patterns in data. For a business, however, analytics should be viewed

as the ability to turn data into profit. Companies who embrace this view of data and analytics will be the ones who differentiate themselves. This is particularly true for the midmarket. Changes in the market that are ripples to big companies can be felt as waves to the midmarket.

Today, you need to analyze your business constantly and from multiple perspectives or dimensions. There is the perspective of the customer. What makes a good customer? What characteristics should we look for in people or companies to size them up as high potential? What is the best custom approach of outreach?

Products, services, locations and all other major dimensions of the business have similar analysis needs, but the higher value analysis comes from the perspective of analyzing multiple dimensions at once. Some of those dimensions of the future, even for midsize business, are going to be big data dimensions – for example, juxtaposing people's granular movements (perhaps on your website) with the immediate surrounding stimuli.

Analytics are undoubtedly done today in the midsize business. They are woven inside existing undertakings. However, is it acknowledged as analytics? Is the data voluminous enough to support the desired analytics? Is the data clean enough? Do the basics require an extensive amount of effort?

Leading midsize businesses are embracing analytics as a necessary discipline. They are saving all their data, ensuring that data is brought to a standard for cleanliness, carefully selecting helpful tools and investing in individuals who consider analytics their career.

Once this analytical foundation is laid within the company, the clamor, and the competitive requirement, is to add big data. Midmarket companies can differentiate themselves using analytics in several ways:

Listen to the market and adapt today

Analytics can be the midmarket company's ear to anticipate changes and shifts in the market, and because of their smaller size, react much quicker than larger competitors. For example, analytics can be a tool to understand consumer behavior. Consumer data in the form of profiles, surveys, preferences, activities, spending habits, and so forth can be used to predict a reaction to a new product or service. Midmarket companies can also use predictive scoring to rank high-value customers or identify those with a propensity to forgo its products and service for those of a competitor.

Reduce business uncertainty and gain more control

In the fields of science and mathematics, gathering more data, repeating measurements and analyzing patterns for consistency reduces uncertainty. In business, gathering more data and analyzing it for patterns also reduces uncertainty. With less uncertainty, business leaders have more control—even in complex environments. Analytics gives insights about which buttons to push

and knobs to turn to better control the environment. In this way, analytics are proactive, while conventional reporting is reactive.

Treat analytics as a strategy and discipline

Midmarket business leaders should set the tone at the top that data and analytics are an integral part of the company's direction and reward those who use analytic insights to make profitable decisions. Moreover, the company should commit to be disciplined and continue to utilize data and analytics on an ongoing basis over the long haul.

Ability To Analyze From Multiple Perspectives/Dimensions

The ecosystem of data in the modern company is an amalgam of many different types and sources. A midmarket company must analyze its business constantly from multiple perspectives:

Financial

What will a company's profit be given various scenarios and assumptions? How will competitor performance and product releases impacted revenue? What market scenarios will give us the highest probability of meeting anticipated revenue targets?

Customer

What makes a high-value customer? How does the business reach and influence them cost-effectively? What characteristics should we look for in customers that identify them as high potential?

Products and Services

How can a company predict if a product will perform in a new market? What is the customer sentiment about a company's products and services?

Multiple dimensions

Customers, products, services, locations and other perspectives of the business have similar analysis needs, but a higher value will come from analyzing multiple dimensions at once.

Think Big (Data)

For a midmarket company to be able to understand the market, reduce uncertainty and gain greater control will require more data. For many years, data has been discarded, because it was perceived to have no business value. Now that vast storage is less expensive, there are fewer business reasons to discard data. Also, keep in mind that abandoning or ignoring data is effectively the same as discarding it.

Today's technology includes sensor-reading, detailed web analysis and social media. These generate data at granularities and volume not dreamed about a handful of years ago. The accumulation of this data can grow quickly to be some of the largest data sets in a business. This data also tends to have wildly divergent patterns as opposed to the consistent pattern of data the midsize business is based on today. These are new dynamics.

While this big data may not be as important as core financial, customer and product data, it will nonetheless play an important role in the ecosystem of the midsize business of the near future. Big data and analytics use levels the playing field. Moreover, big data tools can be accessible, cost-effective and yield satisfactory results with the proper discipline behind their use.

Common Challenges For Midmarket Companies

Many midmarket companies face significant challenges in their current state that prevent them from being able to leverage information effectively today. Midmarket companies are big and complex enough to have a deep need to manage and leverage data, but not quite big enough to have vast resources to throw at such an effort. Below are several of the typical barriers at medium-sized organizations—most companies in this segment have at least one, but many have several or all of them to overcome. None of these are "knockout" factors, just factors to consider in how long success may take and where energies need to be directed.

Current System Underperformance

Many midmarket businesses suffer from underperformance in their systems. Underperformance is a barrier to a thriving, data-consuming ecosystem and rears its ugly head in various forms, including: input/output (I/O) bottlenecks, delayed database responses, system outages and long-running database queries. Conventional wisdom says that underperformance is often due to hardware or software that is inadequate to handle the load. Forward-thinking organizations, however, recognize that underperformance could be caused by a less-than-optimal architecture and systems being tasked with workloads for which they were not designed.

Elementary to overall performance of a workload (and ultimately, a system) is the speed of data access. Better performance can (and should) be engineered with hardware and software optimization, but more importantly, high performance is gained with the correct selection of platform for a workload. Running operational and analytical workloads on the same system often cause a tug-of-war for system resources where operational workloads usually win. Despite their advertised reporting capabilities, operational systems like ERP and CRM are optimized for operational workloads and not analytics.

Regardless of the cause, underperformance often results in frustrated end users and information latency—which is often the difference between making a decision with real-time data or what was

extracted yesterday, last week or even last month. Thus, midmarket companies much choose solutions that are optimal to the workloads they have.

Additionally, high performance must persist regardless of scale. Analytic systems should maintain good performance even as data volumes expand, numbers of concurrent users grow and queries become more complex. Understanding what the needs will be not just today but a few years down the road is key.

Budget Constraints

Oftentimes, midmarket companies do not have more than a "lights on" budget for IT. For many years, the focus was on controlling cost. IT was often seen merely as a cost center, a necessary expenditure. IT resources were stretched thin as managers tried to balance between capital expenditures (CAPEX) and ongoing operational expenditures (OPEX) just to "keep the lights on". However, in recent years, the thinking has changed. Many now consider data a strategic asset, and the focus has been placed on value and return on investment of information-based assets. However, the struggle for many IT managers is still budget constraints.

According to Gartner[1], organizations spend 4% of their revenue on IT on average. Even though the revenue of midmarket companies is growing five times faster than S&P500 companies, the size of their budgets are vastly different in real terms —millions of dollars versus billions.[2]

Considering whatever ongoing IT initiatives are underway, plus the maintenance and support OPEX costs of the average IT shop, making the investment in rolling out a high-performing analytic platform is a tough decision. On top of that, challenging economic conditions can cause many companies to retract CAPEX spending. Midmarket companies need low implementation costs as well as a quick turnaround in time-to-value to be able to justify the expense of an information initiative.

Lack Of IT Depth and Bench Strength

Midmarket companies with constrained IT budgets may also have limited IT personnel resources. IT professionals in midmarket organizations must often be multi-talented generalists, or jacks-of-all-trades. Since they often wear many hats, the trade-off is midmarket IT departments often lack depth and bench strength in business intelligence (BI), analytics and data warehousing. These disciplines require unique skill sets and talents that are different than help desk, networking, server administration and other basic IT disciplines. Companies in the midmarket often choose to bridge this gap with professional services (which is a good strategy), but long-term external support can

[1] "IT Key Metrics Report." Gartner. 2014. http://www.gartner.com/technology/metrics/
[2] Google spent $1B on its IT infrastructure in the fourth quarter of 2012. https://gigaom.com/2013/01/22/google-spent-a-billion-on-infrastructure-last-quarter/

also strain an already stretched IT budget. Therefore, a data analytics solution must be easy to implement, deploy and develop on.

Adoption issues/People Barriers

The culture of the midmarket organization can sometimes be a barrier to a BI and analytics initiative. People are creatures of habit and many do not embrace change. Some even actively resist it. If an analytics effort represents a disruption to people's processes or will have many implementation headaches, people may drag their heels, be reluctant to adopt the solution or even attempt to undermine the effort. The way to mitigate these risks is to choose a solution with a quicker time-to-value, easier integration and implementation, better performance that keeps up with scale, and more capable of producing early wins. If people can see that a new system is going to provide them with benefits quickly or make their lives easier, they will be more likely to rally behind the effort.

Complexity

Many medium-sized businesses were once small business. Their infrastructure, systems and processes grew organically to accommodate their growth and needs over the years. More often than not, this happened in a less-than-cohesive, architected or strategic fashion. This has often led to a disjointed or piecemeal architecture and a mix of heterogeneous systems of various ages and maturities. The result is an overly complex environment that makes integration or "bringing it all together" a challenge. Thus, an information management solution must be able to integrate and interface with a wide variety of existing data sources and tools. It has been said that complexity kills, so a solution must help simplify the environment rather than make it even more complex and onerous.

Keys To Overcoming These Challenges

The good news is these and other challenges midmarket companies face in creating a data-driven decision-making culture can often start to be overcome with the right data solution driven by an effective strategy. The criteria of a data and analytics solution for the midmarket can be boiled down to the following three key considerations. An effective solution must be:

- High performing
- Easy to implement
- Cost effective

Different Data Stores At Work

For a midmarket company, having analytics at work is no longer a question of "If?" or "When?". The answer to the "What?" question is addressed by the remainder of this paper in the form of some options and a recommendation. First, let's explore the different data stores at work in midmarket companies.

Operational Data Stores

Many organizations make the mistake of tasking their operational systems with all of the analytic work of the organization. I have sat in many sales presentations for operational systems (ERP, CRM, Point-of-Sale, etc.) where the vendor would talk about its reporting capabilities. Reporting and analytics are not the same—not in terms of purpose, uses, workload, integration with other data, needed expertise, system architecture or performance. It is tempting to buy into vendor-claimed reporting capabilities, and they have their place. However, inevitable underperformance, complexity, and lack of integration issues will surface from relying on operational data stores for analytic purposes. Given the analytic needs midmarket companies face, infrastructure and data stores dedicated for analytics are necessary. Midmarket companies that are still doing only simple reporting with their data are leaving a lot of value on the table.

Traditional Data Warehouse

Data warehouses have been around for a couple of decades now. They were to the computing world of the 2000s what the mainframe was in the 1970s. However, they are certainly no dinosaur and are still a viable and valuable component of any information ecosystem. Data warehouses are designed and well suited for the financial, customer, product and location dimensions discussed earlier in the paper. However, many organizations are looking in the data mirror and seeing that the traditional data warehouse does not quite fit as well as it used to.

The reasons for this are twofold. First, data warehouses were designed for three specific purposes: data intake, distribution and access. Analytic demands and workloads have sharply increased. While a data warehouse may do a great job making the data available, the data may not always represent the best use-case of form for an analytic function. Analysts oftentimes find themselves transforming the already transformed data in the warehouse.

Second, data does not always fit into the neat dimensions of customer, product, location, etc. Big data is requiring more complex data schemas (or ditched altogether). Simply put, the traditional data warehouse is still necessary and a top priority, but is no longer the one-size-fits-all platform for all, and sometimes any, analytics.

Despite the benefits of having a traditional data warehouse, a lack of analytic performance may cause some to consider pulling data off the data warehouse and putting the workloads on different

platforms and architectures. There are new database technologies on the market that can be considered for specific data workloads

In-memory

In-memory databases are those that reside in the system's main memory rather than on disk, vastly improving read/write and I/O scan times. A few have attempted to put their data warehouses on an in-memory platform. However, gaining consensus on costs is generally too prohibitive today for an in-memory multi-use data warehouse—especially for the midmarket company. Therefore, we do not see in-memory data warehouses that often.

Columnar

A columnar database is column oriented rather than the row oriented like a traditional DBMS. There are performance advantages, because a DBMS does not have to scan an entire row for every record during a query. Instead, it only scans the columns of interest. Putting a data warehouse into a columnar store in orientation generally would help a data warehouse more than it would hurt. However, there may be downsides, and certainly some effort to adjust the data, which always means challenges at gaining consensus for data warehouse.

Cloud

Being in the cloud is not mutually exclusive with the other strategies. It is may be tempting to offload the in-house data warehouse and its tools to the cloud. The cloud may help alleviate some of the challenges from the lack of data warehouse skill depth in the IT department, but will not likely impact the other challenges, such as underperformance. In addition, some people's lack of trust in the cloud may lead to an unnecessary cultural or adoption battle.

If you don't have a multi-use data warehouse (or 2 or 3), there is good news. There are many options, like IBM PureData System for Analytics, for its deployment that may not have been considered in past years.

If you do have a data warehouse, unless it was built recently, it is likely on a platform that does not meet the requirements of current analytic workload, resulting in the consideration of new platform to supplement the data warehouse's capabilities.

Shared Data Marts

Due to the analytic underperformance of some environments, some data warehouses have become source data systems. In some instances, users and application developers who want specific features or their own data sandbox may just source their data from the data warehouse. These leads to the proliferation of multiple data marts, and there are many good reasons to build a mart outside the central data warehouse. However, the key is to not create data silos. Data sharing is still

important. Shared data marts, as long as concurrent use does not create technical or performance issues, are necessary.

For a midmarket company, creating a shared platform of data marts means organizations with midmarket budgets can still be able to get their data from a robust platform without their own system acquisition and resource provisioning.

Shared data marts empower an organization to discuss and give thought to the way data should be represented. The shared strategy can prevent silos by keeping each group in the organization from building their own analytic databases in their own way. For a user, it means they are going to have access to data that is certified at the enterprise level for quality and standardization.

The shared data mart approach may be well suited for midmarket companies, but it certainly does not help them overcome the challenges of complexity. Also shared data marts will constantly challenge the organization culture to remain unified, which can be beneficial if it goes well, or disastrous if it fails.

Analytical Data Stores

In response to analytic needs outside the bounds of the traditional data warehouse city-center, many data and analytic suburbs have popped up. These often take the form of analytic data stores. Simple transactional data requests and more complex analytic requests demand different architectures. Analytical data stores, though quite diverse, are preferred platforms for a heavier analytical workload beyond traditional data warehouses and shared data marts.

These analytic workloads consisting of the following:

- High data volumes
- Complex data models beyond the conventional dimensional models of warehouses
- Advanced statistical modeling and techniques
- Varied traversal patterns and data movements
- Multi-step processes and operations that span different business units
- Real-time and interim results more frequent than defined data warehouse reporting periods
- Location based geo-spatial analysis

An analytic workload demands to be on an analytic platform.

The Still Missing Piece

Despite all the options available to a midmarket company, there is still a missing piece. The demands and requirements that data warehouses and analytics must meet are increasing. Data is getting bigger and processing in near real-time is highly desired. These demands have already

pushed many traditional data warehouse environments to their limits. Midmarket companies need a strategic focus in developing their architectural foundations.

Too often decisions are made within business unit silos without consideration of a foundational architecture strategy. This has led many organizations down the path of data mart proliferation—the creation of inflexible, non-integrated data sets developed to address specific needs. In the vast majority of cases, data mart proliferation is not the result of a chosen architectural strategy, but a consequence due to a lack of one. Adding multiple analytic data stores often creates complexity and data silos. Complexity is not a midmarket company's best friend.

On a side note, the same goes for analytic tools. Some tools are better than others for analytic data access, yet many tools overlap in terms of capabilities. Just like multiple data stores are sometime necessary, multiple tools are necessary, but multiple overlapping tools are not. Having dexterity in a core set of tools and an organizational culture that supports the core set is a key to success.

Rather than bolting on new data stores and tools to the existing architecture, it may be advantageous for a midmarket company to consider a single high-performance platform to house the data stores along with their analytic tools and applications—all in one place.

DATA WAREHOUSE APPLIANCE FOR THE MIDMARKET

The midmarket needs simplicity, strong performance, configurability and scalability, and ease of implementation—all at a cost that fits within the budget constraints of a midmarket company and that can be managed by a small-to-midmarket IT department. Thus, many organizations have turned to data warehouse appliances[3].

Data warehouse appliances are a specialized category of systems in the data warehouse and analytical space. They are integrated with dedicated hardware optimized for handling heavy analytical query workloads. Appliances differ from traditional data stores and systems in that they are designed specifically for analytic workloads and not general-purpose workloads. Data warehouse appliances are more than an enterprise data warehouse sitting on dedicated hardware.

A data warehouse appliance is a platform for a data warehouse, multiple data marts, analytic data stores, or a combination of them all. Data warehouse appliances take the all-in-one approach similar to the way modern personal printers are also copiers, scanners and fax machines.

At their core, most modern appliances look a lot alike—typically utilizing similar high-end processing technologies, such as massively parallel processing (MPP). However, appliances are not one-size-fits-all solutions. Vendors have offerings designed for different types and sizes of

[3] "Data Warehouse Appliance" is a product category and is for data warehouses and other analytic workloads

workloads. There are significant differences between solutions in areas of architecture, performance, quality of service, ease of implementation, and (probably most important) total cost of ownership.

Given the state of the marketplace, a data warehouse appliance (or any data platform) in a midmarket company should be:

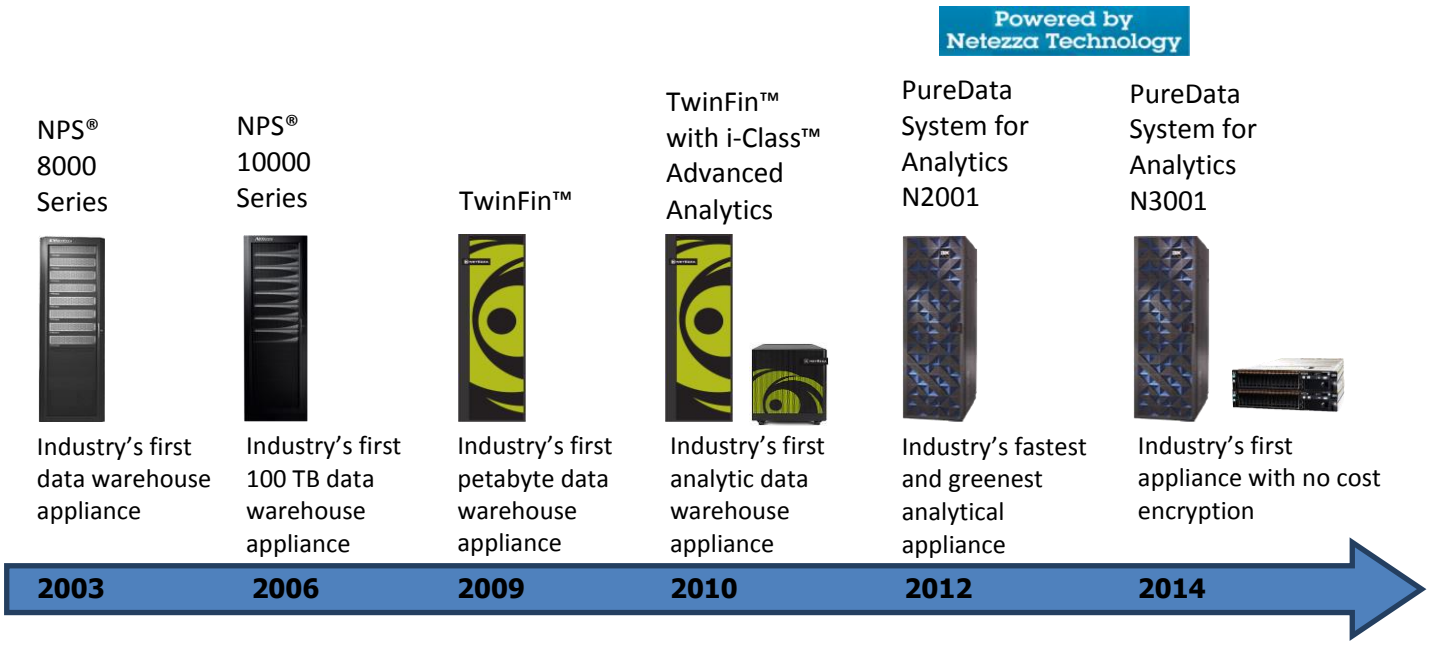
- **Scalable** in both performance capacity and incremental data volume growth
- **Powerful** enough to handle complex decision support in an advanced workload management environment
- **Manageable** enough such that minimal DBA/System Administrator intervention is required
- **Extensible** database design and system architecture that keeps pace with evolving business requirements
- **Interoperable** with other systems in the company's infrastructure
- **Recoverable** and redundant in the event of component failure
- **Affordable** with a relatively low total cost of ownership over a multi-year period
- **Flexible** enough to provide optimal performance across the full range of normalized, star, and hybrid data schemas with large numbers of tables
- **Robust** in database management features and functions
- **Secure** with built in capabilities to automatically protect sensitive data.

IBM Offers a Powerful Appliance Option for the MidMarket

To meet the data and analytics needs of the midmarket, IBM has the PureData System for Analytics mini appliance, a small but powerful data warehouse solution.

Evolution of Netezza & PureData System for Analytics

The PureData System for Analytics mini appliance evolved from the Netezza appliances, which were the world's first data warehouse appliances over ten years ago. IBM has been consistently updating and improving this product line from the N100x and N200x series up to the recently announced N3001 series. The following diagram illustrates the evolution of the Netezza and PureData System for Analytics appliances and their respective industry-leading milestones.



Mini Appliance - Same enterprise capabilities in a midmarket package

IBM PureData System mini appliance is similar to the enterprise models but delivered in a smaller, rack-mountable option. It can be added to an existing data center without requiring a new rack. The system integrates database, server, storage and analytic functions into a single, purpose-built appliance. It is designed to move the analytic processing to the data versus moving the data to the analytic processing. This concept, called 'in-database analytics' is a key architectural difference and enables tremendous performance gains for analytic processing. Serious data systems send processing to the data and do not require data movement to the query engine.

The mini appliance configuration is pre-configured and pre-optimized for analytic workloads. It requires minimal ongoing administration or tuning. It comes with built-in security and data protection capabilities utilizing self-encrypting drives to ensure protection of data at rest. Plus it is architected for high availability. Components are internally redundant providing a robust, production-ready system.

In addition to the data warehouse appliance itself, the IBM PureData System for Analytics comes with a software starter kit to exploit big data and business intelligence capabilities. Included with the appliance are the following software licenses:

- IBM Cognos Business Intelligence for business intelligence
- IBM InfoSphere DataStage for data integration
- IBM InfoSphere BigInsights to augment the data warehouse with Hadoop
- IBM InfoSphere Streams for real-time streaming analytics

The IBM PureData System for Analytics mini appliance specifications are as follows:

PureData System for Analytics N3001-001 Mini Appliance	
Introduced	October 2014
Performance	10x – 100x faster than a custom system4
Racks	N/A Rack Mountable System 2, 2U Slots
CPU Cores	40
RAM	128 GB
User Data (4x compression assumed)	16 TB Self-encrypting drives*

*The N3001 series also boasts a newly enhanced security feature of self-encrypting drives.

Analytics on IBM PureData System for Analytics

The IBM PureData System for Analytics has several built-in in-database analytic functions. These functions include operations for data mining, preparation and transformations and predictive, statistical and geospatial analytics (compatible with the industry-standard Esri GIS formats). Data analysts can work with data directly on the appliance instead of having to off-load it to a separate system and hassle with the associated data preprocessing, transformation and movement. Models can be built using all the enterprise data at once.

Different models can be tested much faster to find the best fit. Once a model is developed, it can be executed against the relevant data right on the appliance. Thus, scoring and prediction can be done directly where the data resides on-demand and inline with other processing. Prediction scores are calculated in near real-time, helping to deliver value from advanced analytics quicker by making it available throughout the enterprise.

PureData System for Analytics: A Good Fit for the Midmarket

To address the needs of the midmarket with a proven appliance model, PureData System for Analytics offers a simple but powerful option. The system is designed specifically to handle complex analytic workloads on terabyte data volumes orders-of-magnitudes faster than custom built traditional systems.[4]

[4] Based on IBM customers' reported results. "Traditional custom systems" refers to systems that are not professionally pre-built, pre-tested and optimized. Individual results may vary.

IBM's PureData solution gives midmarket companies a strong alternative over a complex data warehouse, data mart and analytic environment. It also meets the selection criteria of scalability, power, manageability, extensibility, interoperability, manageable long-term TCO, flexibility, and robust features and functions to support almost any possible midmarket data and analytic need.

CONCLUSION: MAKING THE FINAL DECISION

When choosing a platform for an analytic workload, the selection of the right database platform is of utmost importance. Midmarket companies should chose with discernment, because this will likely be the most significant investment in their ability to make data-driven decisions. Careful consideration should transcend issues and marketing messages. The landscape for this selection is changing constantly, as architectural offerings have moved beyond just massive parallel processing or clustering. Here are a few strategies to help midmarket companies make their final decision:

Make a decision based on a value proposition

Cost and return on investment should be at the forefront. Choose a platform that will deliver on requirements at the lowest cost. The relationship between building a data warehouse and increasing revenue and decreasing expenses must be made clear.

To solve current performance issues, consider an appliance over upgrades to existing systems

Many companies often attempt to improve performance by scaling up hardware in excess proportion to its delivered value. Performance gains with hardware upgrades tend to be sub-linear. Consider radically changing the underlying architecture to improve sub-par performance.

Choose a platform that fits within resource limits, rather than one that burdens you, your budget or your IT staff

An appliance that requires minimal tuning with lower maintenance and administration overhead will help alleviate common midmarket resource constraints, such as a tight budget or an understaffed IT department.

Base the decision on new initiatives as well as an assessment of the current state

The key is to position the company for growth. Data volumes will expand over time as history accumulates, third-party data is added and big data is incorporated.

Realize that a culture will be created around the selected platform

Decisions will impact what new talent will need to be acquired and how existing staff must be trained and aligned with the new platform. New BI and analytic tools will be brought into the

picture. In addition, midmarket companies will hire consultancies based on the platform to most effectively exploit the new technology. Current vendor relationships will also shift.

Learn what is happening in the market

Companies of all sizes are engaging in business intelligence activities. Information is huge on the modern competitive landscape.

Take a test drive

Request a proof of concept demonstration from vendors to see results using your own data.

Above all, make sure a platform selection will fit the company's strategy for data-driven decision-making

The analytic platform decision should be part of an overall vision for a truly high-performing and robust information architecture in a production environment.

About McKnight Consulting Group

With a client list that is the "A list" of complex, politically sustainable and successful information management, the analyst practitioners at McKnight Consulting Group have broad information Management market touchpoints.

McKnight Consulting Group services span strategy, implementation and training for turning information into the asset it needs to be for organizations worldwide. We strategize, design and deploy in the disciplines of Master Data Management, Big Data Strategy, Data Warehousing, Analytic Databases and Business Intelligence.

We can be reached at 214-514-1444 or www.mcknightcg.com

WAL12429-USEN-01