Business Intelligence

Embrace Your Inner Data

ILTA White Paper March 2009
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THEN EXECUTION.

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Every firm, regardless of size or specialty, is as much a business as a service. So in leaner times, Business Intelligence may be the smartest investment you can make — or enhance.

BI — the leveraging of skills, technologies, applications and practices used to help you acquire a better understanding of its commercial context — can give you historical, current, and predictive views of your business operation. In turn, this can help you make the smart business decisions that mean the difference between sinking or soaring.

As always in the ILTA world, the experience of peers is both abundant and yours for the reading. In this white paper, our authors share first-hand intelligence about BI — from new technology solutions to facilitate faster business analysis; to one firm’s solution to speeding time entry, billing and collections to improve cash flow and profitability; to some guidance in building an effective financial data warehouse. And more.

Randi Mayes
Executive Director/Editor-in-Chief
Over the past few years, the generally more conservative business of law has quickly come around to the idea of collecting and analyzing Business Intelligence (BI) to aid in decision making. As firms face an increasingly complex and competitive environment, the industry’s view of BI technology solutions has shifted from “nice to have” to “must have.” Law firms have begun to deploy new technology to better understand their clients (who is profitable? who pays quickly?), and their own professionals (who are the best performers?), as well as to identify business trends earlier. In tough economic times like these, it becomes even more important for firms of all sizes not only to have a clear picture of their finances and operations, but also to obtain true insight into the inner workings of their business and their customers.

**PUT THE NUMBERS TO WORK**

Time and billing technology solutions are the table-stake operational tools for any law firm. The capabilities to record staff time and expenses, to bill clients and to collect fees allow the firm to run its business. Over time, suppliers of these systems have added information management to their solutions to accommodate firms looking to make better use of their data. But even that is not enough to meet today’s expanding need. The business intelligence sector has taken proven financial and practice management systems to a new level. Now these industry-leading solutions foster growth and maximize performance by providing firm’s management with immediate analysis. Gone are the days when numbers were reviewed only by the back-office finance staff and chief officers. Information is now being shared across the firm with managing partners, executive directors and practice group leaders as frequently as weekly or even daily.

This increased frequency is also a shift for law firms that traditionally have looked at reporting on a monthly basis. In order to address issues quickly and with confidence in today’s market, firms need to see critical exceptions and trends much sooner. Good BI technology solutions must include the ability to manage performance and strategic planning to support increasingly savvy professional services firms. Providers need to work closely with their law firm clients to fully understand and deliver the data acquisition and interpretation capabilities that will provide the actionable information firms need to manage their businesses.

**REMEMBER THAT DATA IS STILL KING**

Before embarking on the implementation of a BI solution, a firm must first ensure the integrity of its data. Business intelligence
technology takes millions of disparate pieces of data from a firm’s existing system and ideally stores it all in a clean, smooth structure in its data warehouse. The end result is often wonderful, but getting there can be painful. While initial data checks uncover few issues for some firms, others’ firms may discover a considerable amount of “bad” data. All of the manually corrected records and other data pieces that have been duct taped together over the years will likely bubble up during a data integrity check. Although jury-rigged to work in a legacy system, these ad hoc fixes need to be cleaned prior to a BI implementation.

It is important for both the BI supplier and the firm to have a clear understanding of who will perform the data cleaning and the amount of time this will involve. Firms that choose to clean their own data must be fully aware that an effective BI implementation is dependent on clean data and must be clear about their resources and ability to do the task.

**Implement in Phases**

Because business intelligence is still a relatively new territory for law firms, there is a danger for suppliers to present too much capability and not enough direction. From the firm’s perspective, there is a danger in staff wanting to do too much too quickly as they try to meet a range of needs from multiple departments from the start.

During initial conversations, when a firm is given a blank canvas and asked generally “what do you want this system to do for you?” the firm’s staff may not know enough about a tool’s capabilities to make specific determinations. They likely will provide a list of reporting and analysis needs. However, as their knowledge and understanding of these powerful tools and technology grow, and they begin to learn the language to discuss the tool’s capabilities, their needs likely will evolve or change. Firms need to be aware of this when taking steps to implement their desired solutions. It is best to learn to walk before running with BI solutions.

Business Intelligence in the legal sector will enable firms to take their strategies and analyses to new levels. However, to make the most of their investments, firms need to develop a realistic plan as they investigate their options. This includes: understanding the status of their data integrity and what it will take to make adjustments; agreeing upon who will drive the process; involving end users along the way; developing realistic, phased goals for solution implementation; and working closely and carefully with suppliers to understand the power and capabilities of the tools implemented for developing new reporting and analysis capabilities. **ILTA**

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**Who can subscribe?**

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**TAKE THE CONVERSATION ONLINE**

Don’t miss out on one of the most important benefits of ILTA membership.
Enhanced Reporting and Analysis: The BI Advantage

Duane Morris, LLP, a 650-attorney firm based in Philadelphia, implemented a BI solution in 2008 to address a situation common to many firms. Our financial analysts were receiving requests for information faster than we could deliver. Our previous system had the flexibility to produce the spreadsheets we wanted, but it was time-intensive and paper-based. We were taking data out of the current systems, dumping it into (Microsoft) Excel, and creating pivot tables and running macros and complex formulas to consolidate the data with the exact report we needed.

The firm was using, and continues to use, Elite Enterprise as its source transactional system, a solution designed to help firms report time, produce invoices, run monthly reports and perform a limited number of spot-checking inquiries. In addition, two custom-built utilities were running on top of the operationally based system — a data warehouse to support monthly reporting and an Excel-based financial income report to support the spreadsheets developed by the firm. The reporting solution could drill into the data, but functionality beyond that was limited. These custom applications outlived their usefulness as the firm’s need for more complex financial analytics increased. Our analysts needed to view data in ways that their current system could not easily support. The most frequent reports were ad hoc or custom, and ranged from routine reports like month-end, to time recorded analysis-to-budget and outstanding payments.

Our firm focused on providing reports in a way that made it easier for those requesting them to use the information to manage their areas and to provide direction to the business. Therefore, we created ad hoc reports that were very user friendly and became the basis for communicating trends and making informed decisions. The problem was that we were drowning in a paper-laden process as we tried to get every new report to look as good as the last one. Word-of-mouth was both our friend and our enemy. As the firm expanded and the amount of data increased, the system we were using became more cumbersome. Gathering the data was time-consuming and often difficult to reconcile.

SEEKING THE RIGHT SOLUTION

It was time for a change at Duane Morris. Our firm needed to select a BI technology solution that would provide accurate data warehousing as well as robust functionality to quickly create meaningful, actionable reports. Our selection process included presentations from a handful of companies, each of which had a different approach and functionality for our “perfect solution.” We met with larger suppliers as well as smaller organizations, including one start-up company that basically provided an Excel extraction tool that would sit on top of Elite Enterprise and create a number of pivot tables. Elite’s BI was also among that list of players.

Each of the suppliers presented products that had appealing features; however Elite’s business intelligence solution combined all of that functionality into a useful product. Elite’s BI would also work seamlessly with the Elite Enterprise application that was already providing the firm with financial and practice management capabilities. Ultimately, we chose Elite’s BI because of our comfort with the company and the people and the fact that their solution seemed like a natural fit.

Elite’s BI solution uses its Reporting & Analytics Foundation (RAF), which provides a business intelligence warehouse integrated with Enterprise. When using the Enterprise system alone, our firm would call on Elite to have a desired report developed. Now, with RAF on top of Enterprise, our firm would have the “self-serve” capability to retrieve the information needed, and then, using the tools provided in BI, present the data in a very aesthetic and actionable way. We would also be able to identify and analyze trends and other key performance indicators with greater accuracy and ease.

The Elite BI solution also includes Elite’s Performance Dashboards, which would give us management-level insight into all aspects of the firm. This could help our firm manage its
profitability analysis activities with aggregated, high-level activity reports that could be drilled down in a matter of seconds. The information also could include data from the firm’s other data systems including payroll and human resources.

FINDING OUR SEA LEGS
Prior to implementation, our data needed to be cleansed and aggregated. We worked with Elite to identify and integrate our firm’s specific business rules into the solution. After a series of intensive training and follow-up sessions, we fully launched Elite’s Business Intelligence integrated with Elite Enterprise in April 2008. As with any new technology solution, the greatest challenge for our team was becoming familiar with the product, and we have invested a lot of mental capital with three members of our seven-member team using the product today.

There is a significant investment in start-up time. Working with the consultants, we have already learned a great deal and made tremendous use of BI, but we are still finding our way. A lot of it has been trial and error as we discover different relationships among various fields and reports. In order to overcome these challenges, our firm hired two new staff members dedicated to BI, a senior financial analyst and a software developer in the IT department, both familiar with Elite solutions. The programmer’s primary focus is to convert work previously performed manually or through the existing standard reports to the new BI system, as well as to explore how to fully capitalize on the BI functionality.

Even though the tool is very intuitive, the complex functionality requires taking the time to learn the data universes, what certain functions perform, what certain data fields contain, and what they are related to. It’s an involved process, but the end result has been much better and faster than before.

When converting existing reports, we have found that our new BI solution generally allows us to consolidate reports. We anticipate that our list of 100 reports will eventually be reduced to about 35. We used to be limited to running relationships one-to-one, but BI gives us a new model where we can bring in different fields, measures, metrics and variables, and merge them together to create one report that has all the information previously produced from numerous reports.

One very important report we converted was a customized actual-to-budget time value variance. With the prior functionality, it would have taken us a day to build the report in the data warehouse, massage it, and run about 22 different sorts. With BI in place, the report is automatically generated at a scheduled date and time, and e-mailed directly to us and the chief financial officer.

As we continue to create dynamic reports using BI, the ability to drill down the data in a single report will be key in identifying potential areas of concern and increasing our response time. In one report, for example, we can look at information at a billing timekeeper level, or drill to look at more details below that, all the way down to the timecard itself. In the old system, a different report would have to be generated for the billing attorney and for more details below that and so on.

REALIZING NEW EFFICIENCIES
Improved speed, reliability, flexibility and drill-down capability in reporting are among the efficiencies our firm has realized to date. For example, we can go macro to micro in a single report in about five clicks. The time we save has allowed us to go from being a production shop to more of an analytical shop. We can spend more of our time identifying trends and areas of weakness or strength, and are now better able to practice exception management.

Another timesaver recently tested for the first time at our firm was a performance dashboard, which comes with visualization reporting already pre-built. Instead of reading through the numbers, management can look at the visual representation in graphs and charts and quickly see current information on hours recorded, billings and accounts receivable. Our firm plans to refine the dashboard and distribute it to decision makers at the practice group levels throughout the firm’s 23 offices in the United States, London, Singapore and Vietnam.

Although a valued tool for the firm, the dashboard was a piece of the BI solution we did not begin to develop until more than nine months into the implementation. This was due primarily to the learning curve for understanding the BI solution’s capabilities and functionality and how they could be applied at our firm. To address this “blank canvas” situation going forward, Elite will release, in the coming months, a new set of out-of-the-box dashboards with up to 10 different standard dashboards or “portraits” so that clients will be able to immediately see and play with a number of reporting and analysis capabilities.

Although we are currently just scratching the surface with dashboards at Duane Morris, our plan is to employ this functionality to give our decision makers instantaneous access to data with drill-down capability. With data refreshed and posted each day, they will receive activity updates in a visual format that highlights successes or identifies areas that need attention. This is just one way that, as a management tool, the BI product will be very helpful in identifying those areas we want and need management to focus on.

As we continue to explore the full capabilities of our business intelligence solutions, we are realizing not only the immediate benefits of swifter reporting and analysis but also discovering new ways to provide actionable information that will support our firm’s business goals. ILTA
In 2005, Orrick, Herrington & Sutcliffe, an international firm with 1,100 lawyers in 21 offices worldwide, faced a problem familiar to most major law firms: A significant number of our attorneys were neglecting to turn in timesheets in a timely manner. Our firm had tried a variety of tactics to motivate our lawyers, including providing one-on-one tutorials, holding partner retreat workshops on financial management and accounting procedures, and sending out a barrage of memos and e-mail messages to encourage them to meet deadlines. We were collectively frustrated that these efforts had only limited success, and we continued to face a frenzy of billing and collection activities at year-end closing. Beyond causing the obvious administrative stresses, this late reporting slowed the firm's cash flow, impacted profitability and limited our ability to establish a business continuity plan.

An Inventory Management Committee (IMC) was formed to improve the firm’s three main inventory components: time entry, billing and collections. As controller of operations, I originally served on this committee with the firm’s chief operating officer and four partners. Our goal was to introduce new programs that would improve our financial performance, client relationships and the firm’s ability to recruit top talent based on effective and proven financial management processes and procedures.

With efforts focused on raising individual partner awareness of best time capture and billing practices, we introduced the following measures:

- Incentives for meeting, and penalties for missing, time-capture deadlines
- Limits and guidelines for attorney write-offs
- Automated reminder statements
- A grading system with report card
- Face-to-face meetings
- Partner training lunches

REPORT CARDS THAT MATTER

The introduction of quarterly and annual partner performance “report cards” ended up being one of IMC’s more effective measures. These were generated from our financial management system, ADERANT Expert, which the firm had been using for time capture, billing, reporting and general
back-office accounting functions since 1997. In order to provide billers (including partners) with expanded billing information, we began to exploit more of the software’s features and functionality. For example, we increased our billing frequencies in order to categorize different types of billing. Historically, it was enough to know if a billing activity was monthly, quarterly or on call. Today we also need to know if the activity is transactional and, if so, the type of transaction.

When we create a report card, we include only matters that can be billed. If a matter is billed at a closing instead of monthly, we exclude it from the calculation. We identify these matters by assigning them a transactional bill frequency, all generated within the software by our reports group. All data needed to run custom reports or collections inquiries is in the database ready for our use. We can easily look at a transaction and follow it through its life, which helps us determine where things are in the collection cycle. Once created, the custom reports are shared with managing directors, practice group leaders and office management.

To further increase the visibility and anytime accessibility of firm financials, we have recently made key performance indicators and client/matter details available on the firm intranet portal. Since the fall of 2007, firm partners have had anywhere, anytime access to pertinent billing and other financial information. This includes drill-down capabilities so they can identify the matters that may be affecting their report card grades.

Orrick also instituted an automatic bonus and penalty system as part of the new report card. This system enabled the firm to exploit the innate desire of Orrick’s partners to improve individual performance and live up to their “overachiever” reputations, while producing tangible firmwide benefits.

The new system was not designed to overly punish or over-reward partners. Penalties were set at a percentage of their average work-in-progress and accounts receivable; bonuses were also set at moderate levels and are calculated on a percentage basis of the billing partners’ annual cash collections. Grade “A” bonuses have a pre-set ceiling and floor, as do penalties for “Cs” and “Ds”. Those with “Bs” do not receive rewards or penalties.

MAKING THE GRADE
There have been tangible benefits from Orrick’s use of report cards. Partners who were delinquent or inattentive to their inventory have either improved or are actively working through specific issues and exceptions. Consistent communication on metrics, variances and financial results has significantly improved partners’ understanding of the link between key financial metrics and overall firm profitability. Partners can also see the impact their individual performance has on the firm’s overall finances.

Equally valuable is the improved communication regarding attorneys’ financial accountability and performance that now takes place between finance, partners, practice group leaders and the firm’s leadership team. The ability to access such reports and key performance information directly from a Web interface (via the portal), at any time, provides even more insight and further enhances proactive communications.

Orrick leveraged its business and financial management software, ADERANT Expert, to reduce lags in time capture and client billings, encourage faster collections, and as a result, increase cash flow and profitability. The report card system and grading practice has taken abstract data and transformed it into relevant and actionable information. We have consistently measured the firm’s tangible results achieved with our grading initiative, and these include the following:

- **A 10 percent drop in days in inventory through 2007**
- **Improved cash flow from faster billings and collections**
- **Increased, and faster, partner draws**
- **A 35 percent increase in Profits per Fully Variable Partner, from $1.09 million in 2004 to $1.66 million in 2007**

Additional benefits to our firm have been improved client service based on more efficient, accurate and timely billing practices, and quicker access to real-time firm data. Orrick’s increased profitability has also improved the firm’s ability to recruit and train top talent over the years.

In looking back, we are very fortunate to have identified financial management and billing inefficiencies at an early stage, in 2005, and to have made appropriate management and reporting decisions in a timely manner. The firm’s ability to utilize creative performance measurement techniques such as the report cards, and push the business and financial reporting envelope with our ADERANT Expert financial management application, has positioned us well for an increasingly challenging economy. ILTA

This just in . . . in 2009, we have modified the program (designed to further “encourage participation”) to include an adjustment to the partner’s monthly distribution based on his/her grades. Although still too early to predict the ultimate outcome, we believe this enhancement will renew interest in the full cash flow cycle starting with entering time.
If you’ve ever read an article or a book about data warehousing, you’ve probably come across the myriad ways a warehouse can fail. Most of these sources cite poor executive sponsorship as the main source of failure, but there are a number of factors that can inhibit a data warehouse implementation. To prepare for a successful outcome, it makes sense to identify those activities that reflect good sponsorship as well as the other strategies needed to implement an effective data warehousing system.

My firm has been using an internally built financial data warehouse for more than seven years. Though it is not a perfect warehouse, it is used effectively for reporting by a variety of departments and serves as the data store for a number of internal applications. Due to a migration away from its hosting platform, however, the end is in sight for this warehouse. As our firm migrates to a new platform and a new warehouse, we have had the opportunity to reflect on some of things we did right and some of the lessons we learned during the first implementation.

According to Wikipedia, a traditional data warehouse “is a repository of an organization’s electronically stored data.” Data warehousing refers to the capture, organization and use of data to support analysis and business activities.

Warehouses can be used in many different ways, depending on organizational needs. Some of the common ones include: merging data from multiple environments; shifting the burden of reporting from the transactional system to support faster transactions and reporting; executing more complex analytical reports; storing and retrieving historical information; and providing consistent data across the organization, among others. In short, a data warehouse is any data center that is not primarily used as a transaction system.

Data warehousing is a mature technology most widely seen in retail, finance and manufacturing industries. Professional services like the legal services industry have been slower to embrace data warehousing. The idea, however, has been gaining traction over the last few years as more software vendors have incorporated data warehousing, or business intelligence, into their product lines. Partners are looking for ways to grow their businesses and are asking more sophisticated financial questions that standard reports can’t answer. A warehouse can provide clear data-centric approaches for business development.
KEYS TO A SUCCESSFUL IMPLEMENTATION

BUSINESS SPONSORSHIP

While it is possible for a software implementation to be successful without the involvement of the business team, chances are it won’t be. To use a boating analogy, the technology team is the engine room, and the business team is the pilot. Without clear direction, the ship will move, but it could head into the reef. Without a solid engine room, the destination may be clear, but the ship may never reach it.

Strong support from the user community is essential for a successful implementation, and during our implementation, we were fortunate to have a lot of user input. A senior level manager for our firmwide financial services group was a firm believer in the value of data warehousing and strongly supported its creation and implementation.

That strong support also started with management’s belief that our current method of reporting could be better, and not only better, but worth the additional effort needed to build a different process. Partners are more likely to view an investment in technology as wise if they are clear about how it will help them be more effective in their work. A warehouse that doesn’t provide a significant increase in data accessibility, quicker response times and better analytics is not worth the time and effort.

We built trust in the system early on with the implementation of a small data warehouse that held various people, matter and client data. Through that effort, the firm had made initial progress toward restructuring how data is accessed. This initial foray, with multiple systems updating a small set of tables, was enough to whet the appetite of the users and give the technology staff the confidence and familiarity it needed to go forward with a far more ambitious data warehouse.

VALIDATION AND BALANCING

In a perfect world, a separate team of data quality specialists would validate the data before releasing it to the users. Unfortunately, most law firms, even large ones, don’t have the personnel to support this model.

During our implementation, we relied on our end users to do our data testing. The warehouse team wrote their own scripts to do the initial balancing, but it was the users who provided the final verification that a table was correct. This approach was beneficial for a couple of reasons. First, the users were more familiar with the data. They knew right away if something looked right or wrong. This is not to advocate spot-checking as a balancing methodology, but it did come in handy at times.

Once the decision was made to build the warehouse, the business community spent significant time and energy on the project, and, understandably, expected to get something significant in return. They had a clear understanding of where their current reporting lacked either functionality, speed, or both, and knew that a better reporting platform would increase their ability to deliver the data requested by partners.

REQUIREMENT GATHERING

Perhaps the most important part of any application project is the requirement gathering, or determining the reporting needs of your organization. Guessing at requirements is a hit-or-miss proposition. Guess wrong and, at best, you’ll have a chance to rebuild it. At worst, you’ll be getting in touch with those recruiters you never thought you’d need. Having a clear mandate and clear user requirements are important to laying the groundwork for a successful warehouse project.

One way to foster involvement in this process is to estimate how many hours a week the sponsors or their designees will need to commit to the project. While an estimate is not a guarantee of action, it can at least give everyone a realistic idea of the time commitment involved.

The person or team who has final responsibility for designing around the user specs needs to be involved in these meetings. Requirement gathering is part science and part art. Active listening and organizational skills are important “science” traits. Another is the ability to ask the right questions regarding the data. A good requirement gatherer will have a series of use-case examples at hand. Understanding how the users want to see a new record, an update, and a delete, and understanding how the system handles these changes, is critical to a successful warehouse. Users don’t often offer this information. If understanding what questions to ask is the science part, then knowing how to ask them is the art. Since requirement gathering can be frustrating to all the parties in the room, it helps to have a meeting chair who is skilled at bringing the group together and motivating participants to contribute.
particularly with the dimensional data. Second, the early exposure to the warehouse gave end users time to understand the data structures and lineage, which was very beneficial to them when they began to write reports.

The downside to this approach was that business analysts don’t normally write balancing scripts, so there was some initial training needed. Here again, our executive business sponsorship was instrumental. Without the business side of the house making the warehouse a priority, balancing, no doubt, would have been perpetually moved to “the next thing on the list.”

We did, in fact, have to schedule in those times when the warehouse would be put on the backburner. We skipped scheduling work when it was clear that the balancers would be occupied with other tasks such as month-end closings. Including these out-of-pocket times in the implementation plan helps relieve stress for everyone. Another way to relieve stress for the implementation team is to have knowledgeable IT staff assist with tweaking SQL statements. This can be accomplished in an informal, ad hoc fashion, where balancing staff asks questions as they arise, or through regular meetings if the information would benefit multiple people.

**ACCURATE TESTING**

The testing process needs to be thought out and carefully executed. This can help prevent a situation where data is found to be wrong two or three months after it’s been reported on and distributed. A warehouse will be a failure if no one uses it, and nothing drives away users like invalid data.

Script writers should resist the urge to simply copy the logic that loads the data into the balancing scripts. This approach may lead to false positives and make the data seem correct when it isn’t. By using the requirements document as the basis for the balancing scripts, it forces the quality control group to understand the requirements. And, if your quality control group is also the department that created the initial requirements, this method provides a secondary verification of that document.

Some logic might be quite complex, so assistance from more experienced hands may be needed, but a direct copy should be avoided whenever possible. We did make one exception to that rule for our implementation. We allowed the QA scripts to use functions we created in the database for the load program, rather than have them create their own. For example, one of our source tables is a description. It looks like this:

<table>
<thead>
<tr>
<th>Key</th>
<th>Line</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>123</td>
<td>1</td>
<td>This is a sample description used for illustration.</td>
</tr>
<tr>
<td>123</td>
<td>2</td>
<td>3 illustration.</td>
</tr>
</tbody>
</table>

We have many descriptions that are longer than 25 characters, so the source data is modeled like this:

<table>
<thead>
<tr>
<th>Business key</th>
<th>Line number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>int</td>
<td>int</td>
<td>varchar(25)</td>
</tr>
</tbody>
</table>

```
123       3       illustration.
```

Our function would concatenate these lines, so the warehouse description would read:

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>123</td>
<td>This is a sample description used for illustration.</td>
</tr>
</tbody>
</table>

We could have had QA team members build their own functions, but we didn’t want them making objects in the database. We thought that the queries were enough of a technical challenge, while still being within their skill sets, and that adding this type of technical task would have distracted them from their goal of balancing the data.

Finally, if any nontechnical folks are going to be balancing the data by using scripts, it is advisable to send them to training for writing SQL statements. A training class will extend the implementation timeline as well as increase the budget, but it will absolutely pay dividends. As nontechnical staff become more comfortable with writing SQL statements, it is still important that the warehouse team be available to provide assistance.

**SKILL SETS**

Building or even maintaining a data warehouse requires its own unique skill set. Everything from the tools used to the design of the database is different from relational systems.

There are a couple of methods to designing the tables, most commonly the star and snowflake schemas, for a “normalized” warehouse. If the warehouse is being built from scratch, trust the design with someone who has done it before. A good design will enable the warehouse to grow not only in size, with respect to the number of rows in a given table, but also in breadth and scope as modules of different data are added and more users and groups find value in it. Reports should not slow down, however, in response to this growth.

Once the design effort is done, it’s time to extract, transform and load (ETL) the data. There are many ETL tools available in different price ranges that offer varying degrees of utility. We chose a tool offered by the database vendor. The price was right (free) and, as a law firm, we didn’t have terribly complex data or a large enough data set to need a large ETL tool suite. ETL tools offer a wide range of functionality, ease of program and schedule control, and other features.

Just because a tool is free, low-cost or open source doesn’t mean it won’t work for your implementation. Of course, it also does not guarantee that it will be a fit. For a thorough evaluation,
invite some vendors to show you what their tools can do, or download trial copies to evaluate yourself.

For our most recent implementation, we published an RFI and sent it out to ETL vendors offering solutions we felt might meet our needs. The RFI outlined those functionalities that we identified as both needs and wants. Some important questions included were:

• What is your recommended or required hardware configuration?

• Which operating systems does your tool support?

• How often are software updates released, and are these priced separately?

• Is the tool a partner of the OS and database vendors?

• What databases can it select from and write to?

• How does it scale?

We spent considerable time creating our RFI, and it helped clarify exactly what we wanted and helped us select a tool that met those criteria.

COTS SOLUTIONS

Though an internally designed and built warehouse is a possibility for some firms, most law firms wouldn’t want to take on the additional overhead needed to build and maintain it. Fortunately, customized, off-the-shelf (COTS) warehouse solutions offer another option. My firm’s first warehouse was an offering from a financial transaction system. A senior financial analyst says, “It was a good warehouse, but it was limited,” and recalls that this initial warehouse was only updated once a month and contained tables that were simply copies of reports.

Fortunately, off-the-shelf solutions have come a long way since then. COTS warehouse solutions can be a great way to get into warehousing without all of the overhead and time committed to an internal build. Consider, though, that there are some organizational qualities that make a COTS implementation more or less favorable, depending on the culture and needs of your organization.

As always, it is wise to ask the questions that will help you determine if a COTS solution is a good fit. These might include the following:

• Are your users generally receptive to “canned” software? If your users generally adapt to new solutions easily, then implementing a COTS warehouse should be simple; if not, beware of costly modifications and unmet business needs.

• Is the vendor easy to deal with?

• If the business needs change, can the software change with it?

• If you have to change the software to fit your users’ needs, will the vendor be a true partner or circle the wagons?

• Can it be supported by internal staff, or will every issue require a call to the help desk?

• Does it support integration from multiple data sources?

• If it’s a warehouse from your financial system, will it integrate spreadsheet data or third-party data?

• How does it scale?

• It worked in the demo, but how will it work with your staff pounding it and month-end?

• Does it provide data history even if the source system doesn’t?

• If an attorney changes offices, will it record when the change occurred and which billing records belong to which office?

• If other applications use it as a data source, can those applications function if the warehouse is off-line for loading?

Before coming to the decision to build a new system, we did our due diligence and evaluated a handful of canned data warehouses. Each had strong points, but all were lacking in some area that was critical to us.

CONCLUSION

A data warehouse can provide excellent analytics for any organization. The benefits of having such a system in place are growing as business intelligence plays a more prominent role in an organization’s ability to plan strategically and meet financial goals. The team that precisely determines its firm’s needs, considers all the available options and plans carefully for implementation is laying the groundwork for a data warehouse success story. ILTA
In the current economic environment, law firms of every size, in every major legal market, are resorting to belt-tightening measures like never before. According to a recent Altman Weil law firm survey, two-thirds of firms expect lower 2009 revenues and will respond by cutting operating expenses. At the same time, Altman Weil reports in a recent law department cost-control survey that three-quarters of legal departments will be reducing their budgets.

The real estate meltdown and ailing financial markets aren’t solely to blame. The current economic challenges have brought to light a fundamental lack of efficiency at many law firms characterized by too much time and energy spent on low-value tasks.

This lack of efficiency is nothing new. In the firms of yesteryear, the focus was on maximizing billable hours, which has long been a measure of success. Clients, who often remained with the same attorney for years, generally accepted their legal bills without question.

But in today’s competitive new legal marketplace, clients can take their pick from an array of top-shelf legal providers. They have a tendency now to use many different firms and scrutinize legal bills more carefully (even using electronic means). Undoubtedly, providing legal services as efficiently as possible, and with as lean a staff as possible, is the new paradigm.

**THE SOLUTION IS CLIENT INFORMATION MANAGEMENT**

Fortunately today, firms can implement new technological solutions that will have a direct and positive impact on their productivity and client satisfaction. Client information management systems (CIMS) — digital, centralized repositories containing all the client data a firm needs to do its work — promise to deliver real and substantial bottom-line results.

In the past, the use of client intelligence systems typically has been focused on billing and marketing activities including all of the functions that help a law firm track and bill revenue or look for new billing opportunities. They weren’t designed to help a firm get its work done faster, easier and better. At the time, when legal budgets were increasing and clients were exercising less scrutiny over their bills, more staff could simply be added by a firm to mask any inefficiency.
However, with today’s decreasing revenues, legal service providers are being forced to reevaluate the status quo and take a new approach. More and more firms are turning to CIMS for assistance with increasing productivity, providing better client service and winning new business, the key factors for profitability and long-term success.

**PRODUCTIVITY PAYS**

Consider how a firm must respond when a corporate client calls with a quick question, such as: “Could you let me know the portion of the company that is owned by my family?” The following two scenarios illustrate the time-saving benefits of having the right technology.

If a firm does not have its client information in an online system, answering this question would involve the following steps:

- The paralegal looks for the stock ledger book and writes down all the shares issued to family members since the date of formation. He adds up the numbers and subtracts all of the stock transfers (2 hours).

- The paralegal adds up the total number of shares outstanding based on the company’s common stock, convertible stock, options and warrants. Then he divides the shares held by the family by the number outstanding (2.5 hours).

- The paralegal looks for the minute book to confirm each stock issuance against the minutes of the board meetings (1 hour).

- The paralegal reviews the numbers, calculations and board minutes with the junior associate (1 hour).

- The associate then reports the answer to the partner and they call the client (1 hour).

**Total Billed Time: 7.5 hours**

On the other hand, if a firm has been tracking its client information in an online system, answering the same question would involve the following process:

- The paralegal opens the capitalization table in the CIMS and selects only the group called The Smith Family. He exports the number of shares held, the number outstanding and the percentage held by the family to a spreadsheet (30 minutes).

- For each outstanding stock certificate, the paralegal clicks on the link to the related board minutes and prints them out (20 minutes).

- He e-mails the answer, with an attached spreadsheet showing the calculations, to the junior associate and partner and indicates that the supporting board minutes have been printed out (10 minutes).

- The associate and partner meet to discuss and contact the client (30 minutes).

**Total Billed Time: 1.5 hours**

Would the client who asked the question about family ownership expect to be billed $1,875 or $375 for this information? It stands to reason that the client would be impressed with a lower bill and an answer later that same day. Being able to accommodate the client’s request in just 90 minutes means the firm’s paralegal and associate have six additional hours to work on other assignments. The firm that is using an online system may in fact need fewer staff to support its clients, which could translate to lower fixed operating costs and enhanced profitability.

**THE EFFECTIVE LAW FIRM CIMS**

It’s not difficult to understand how implementing a client intelligence system can lead to higher productivity and better client service for a law firm. Having accurate, real-time client data in a shared digital repository enables everyone (lawyers, paralegals and clients) to do their work better, faster and easier. From a law firm perspective, however, there are specific elements that define a successful CIMS.

**Available Data**

Although client intelligence can refer to a variety of information types, the data that comprises a legal entity profile for each of a firm’s clients include:

- Name, state and date of organization

- Names of the key people who run the company

- Names of those who own the company, such as stockholders and investors

- Copies of all board minutes and other documents that relate to formation of the legal entity

Using a corporate client example, this is the type of information that must be readily available in order for members of the firm to do their work efficiently.
The key CIMS attributes for any practice group would be characterized by the following:

**Centralized Resource**
Centralizing records ensures that there is only one copy of the data or document. With a single, centralized data repository, the information is updated and distributed to all users in real-time. It can also be connected in different ways to provide a 360-degree view of the client and establish a legal audit trail.

**Standardized Information**
In a standardized system, expectations are set in advance as to how information is tracked and when it is viewed. There is a consistency to everyone’s use which takes away guesswork and ensures that best practices are followed. A standardized system also makes it easier to train new users and enables different personnel to cover when there are absences or vacations.

**Browser-Based Access**
Using a Web browser ensures that information is automatically available to the largest number of people and prevents the need for additional software. The information within a browser-based CIMS can be conveniently accessed at any time and from anywhere including client meetings, hotels and home offices. The same information is available to those within the firm and those who have access from outside the firm, such as clients.

**Productivity Tools**
To greatly increase productivity, a CIMS must do more than just track the information that is stored in it. It must use the information to complete tasks that were previously difficult or time-consuming, such as creating documents, performing complex calculations, tracking due dates, sending off reminders and searching documents for key words. Gaining faster access to information is only the first step toward increasing productivity. The greater payoff is in automating those activities that otherwise would have taken a large amount of time.

**Management Support**
No information system will succeed without support from management both at the top and from immediate supervisors. A sound CIMS requires regular monitoring and a strong commitment to data integrity so that everyone can trust it to be complete, current and accurate. This requires effective user training, enforcement by direct managers and support from senior management.

**THE PRIMARY BENEFITS OF A CIMS**
The integration of a client information management system into any law practice offers three main benefits that will drive profitability and long-term success: reduced costs, lowered risk and greater client satisfaction.

**Reduced Costs**
By increasing internal productivity, firms can accomplish more work with fewer employees. Through CIMS automation, a task that once took staff two hours to complete may now take only 20 minutes. Think back to the productivity leap forward that businesses experienced when spreadsheets were first introduced. These savings can be passed along to clients through lower legal fees, or they can increase the profitability of the firm.

A CIMS can almost immediately improve efficiency within a law firm, by allowing staff to:

- **Quickly Find Documents and Information**
  Staffers no longer need to spend time searching for a minute book or flipping through pages looking for a particular vote or key word.

- **Create Documents On the Fly**
  Existing data can be merged into document templates, such as charters, bylaws or stock certificates.

- **Automate Calculations**
  Spreadsheet formulas save hours of manual, error-prone calculations.

- **Avoid Redundant Tasks**
  Since work product, such as a disclosure list of all board member affiliations, is created in real time, there is no incremental time invested in updating the document to satisfy multiple requests.

“The integration of a client information management system into any law practice offers three main benefits that will drive profitability and long-term success: reduced costs, lowered risk and greater client satisfaction.”
• **Interchange People**
  When everyone is using the same system and the same standard templates, it’s easier to train new users or shift staff responsibilities during temporary absences.

• **Lowered Risk**
  A single source of data that is accurate and up-to-date greatly reduces the risk of errors and potential data loss. With data located in many different places, it is much more difficult to locate all the relevant pieces and identify the most current versions. The chance of errors grows exponentially as complex tasks are done many times over by many different people.
  A CIMS can significantly reduce:

• **User Errors**
  When a piece of information is only entered once and used throughout subsequent calculations, reports and searches, it greatly decreases the potential for user error.

• **Guesswork**
  A CIMS that is stocked with readily accessible data relevant to an attorney’s work helps to eliminate the possibility that decisions will be made based on incomplete information.

• **Inconsistency**
  A CIMS helps standardize even the simplest of tasks, ensuring that best practices are always followed.

• **Risk of Loss**
  By its sheer nature, client information frequently contains personally identifiable and confidential information. Storing client data in a secure, password-protected CIMS helps a firm to safeguard highly sensitive client information and reduce the risk of loss.

• **Greater Client Satisfaction**
  A central repository of data gives a firm’s clients direct access to the information they need to do their work faster and better. Moreover, clients who are empowered to serve themselves believe that their outside counsel is making an effort to provide higher quality service and lower legal fees. This leads to happier clients who are more likely to send subsequent work to the firm and provide positive word-of-mouth referrals.

For clients of a law firm, a CIMS contributes to:

• **Lower Fees**
  When clients have direct access to legal information, they can save money by executing many tasks themselves.

• **Increased Productivity**
  Clients are more productive when they can get to the information they need when they need it — at any time and from anywhere.

• **Better Decisions**
  Clients can make better decisions when they have access to information and data, which they can search, filter and sort as needed.

• **Improved Collaboration**
  When attorneys and clients are looking at the same information, they can share the workload, communicate more easily and reduce the likelihood of discrepancies.

• **Sense of Empowerment**
  Clients feel empowered when firms offer them direct access to pertinent information and documents. This helps to avoid the perception of ownership, roadblocks, and separate silos that work against a sense of “partnership” between a firm and its clients.

**The Key to Long-Term Success and Profitability**

The legal landscape is changing, and it’s changing quickly. As Mark Chandler, General Counsel of Cisco Systems, Incorporated, has been quoted as saying: "The greatest vulnerability of the legal industry today is a failure to drive models based on value and efficiency and to make information more accessible to clients. The present system is leading to unhappy lawyers and unhappy clients."

With client standards so high and the marketplace so crowded, law firms that fail to make greater efficiency a priority may face a long and uncertain road ahead. In addition to considering which firm gives the best legal advice, today’s clients are also looking at who is most responsive, who is easiest to work with and who comes in with the lowest fees.

The firms that are adopting client information management systems and similar technologies are finding themselves able to effectively meet the needs of today’s demanding clients. Indeed, firms that offer higher caliber work for lower costs will not only attract new clients, they will also be better able to retain existing clients and ensure their firm’s long-term success and profitability. **ILTA**
BI Resources from ILTA

Sharing information is the cornerstone of ILTA, and our public website provides abundant resources on any topic of interest to the legal IT community. From www.iltanet.org use the search term “business intelligence” and see what is returned. You can then filter the list to include “articles and publications” (as an example) and see the rich archive of content on the topic. Among the many, we find:

**BUSINESS INTELLIGENCE: WHAT DOES IT REALLY MEAN?**
A webinar from April 2008 that is available for viewing via the archives

Presentation Synopsis: Business Intelligence is a broad solution segment that supports business performance management and is also a term that is often overused and misunderstood. The solution includes numerous types of corporate performance management solutions, tools and content that support business planning, plan execution and business decision support.

This webinar will take a higher level look at what is really meant by the term “Business Intelligence” in the law firm and will shed light on how all of these various component parts fit together to increase visibility, improve decision making and enhance sustainable profitability.

**BENCHMARKING 2.0 - INSIGHTS FOR VOLATILE ECONOMIC CONDITIONS**
The PowerPoint presentation from ILTA’s 2008 conference

Presentation Synopsis: Tracy Franklin, Robert Swayze and Jim Miller are joined by Patrick Fuller and Mark Medice of the Thomson Business Of Law Group to discuss the key drivers of change are to law firm performance management and how to proactively respond with appropriate intelligence systems, innovative approaches to legal benchmarking, and why these approaches are likely to be the new standard for use. They also consider how finance, marketing, client development and strategic management responsibilities require integrating for optimal responses to the market.
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Publication Methodology

This white paper has strong undertones of “green” as it is being published in electronic format (PDF) only. Please share the link with colleagues.

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