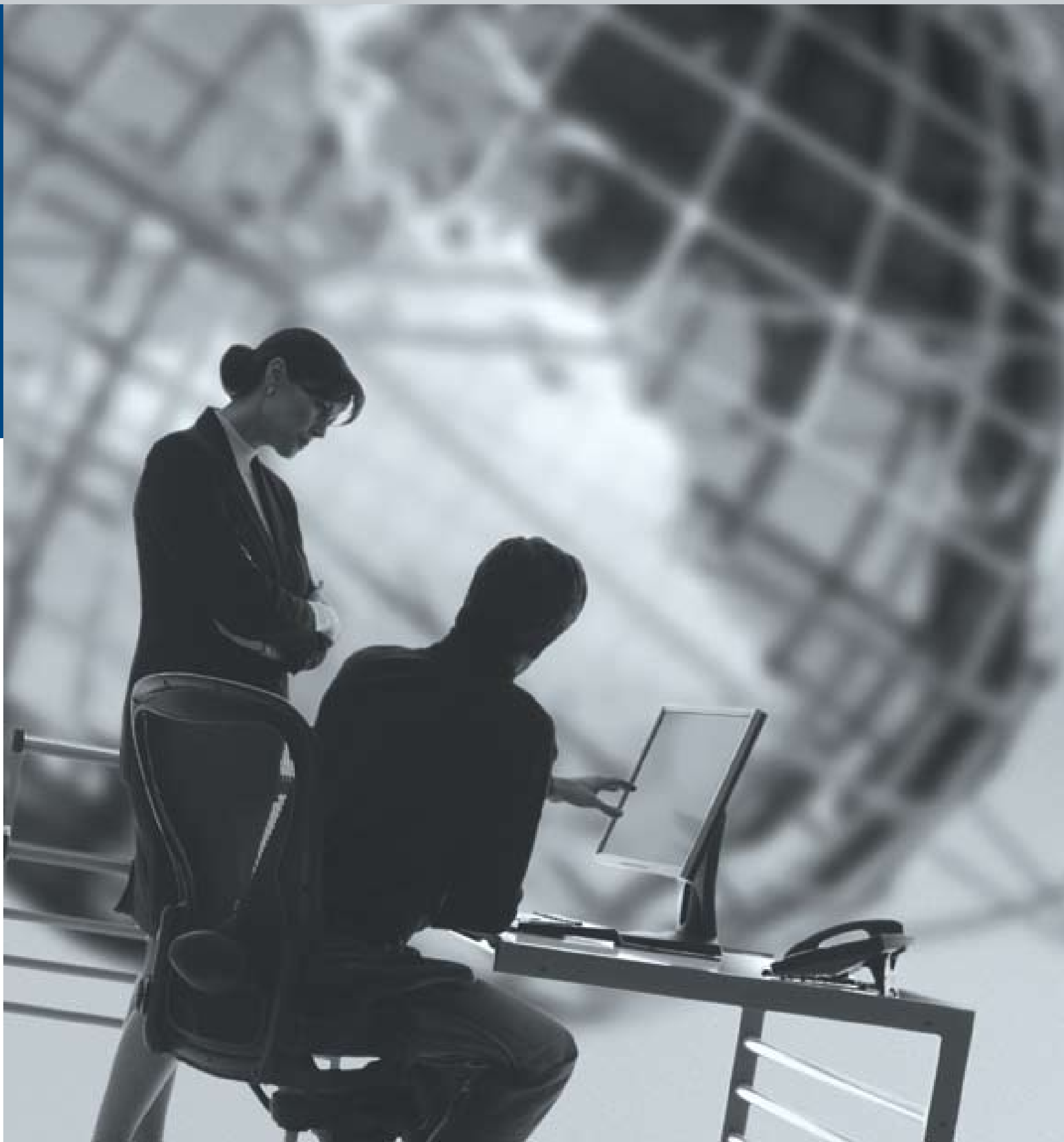
The power of automated credit decisions



A D&B | DI Whitepaper

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Introduction

It is widely understood that cash-flow is the lifeblood of a business. Cash enables bills and staff to be paid and investments to be made – without it commerce simply ceases to function. Therefore it must be viewed as a concern that trade payment indicators have continued to deteriorate since the advent of the Global Financial Crisis.

Understandably as businesses feel the pressure from the slowing economic conditions payments to suppliers slow. The impact of this is an economy that slowly grinds to a halt as cash flows to entire supply chains become more constrained. In April 2009, Australian business payment terms rose to 57.6 days, following a steady increase since the global credit crisis began in September 2007[1].

Within this environment one potential response is to sell more products or services. With sales teams leading the way to recovery by harnessing more prospects, selling more solutions/products and ultimately improving the bottom line – companies can be seen to be trading their way out of the economic woes. The other potential response is to focus on what is seen to be the ‘controllable’ factors – that is managing costs. Companies can take on a siege mentality to lower costs and maintain, or at least be seen to be maintaining, some level of control. If only it was that simple.

While more sales and lower costs are great the reality is that more sales or a reduction in expenditure will not fix the problem. Salespeople still need to ensure that actual money is flowing into a business and to do that they need the help of the finance team and in particular the people in charge of credit – the credit management team.

Many organisations recognise the value of this holistic approach to ensuring that cash-flow remains strong. Credit and sales departments are working more closely than ever before to stay a step ahead not only of competitors but of depressed economic conditions and keep cash flowing. More companies realise that ‘sales people have a difficult job getting people to buy, but a sale isn’t profitable until the money is collected.’[2]

[1] Source: Dun & Bradstreet, Trade Payment Analysis, Q1 2009.
[2] Source: Steven Coyle Debt Collections: Stir Fried or Deep Fried?: Managing Consultant of Service Winners International in Malaysia.

In order to ensure that the sales flow is maintained the credit decisioning process must be almost instantaneous. If a sale is held up, or even worse lost due to a wait in deciding on potential credit risks then businesses will start to ask serious questions about the long term viability of that process. In a world where customer decisions are faster than ever before no one wants to wait long for a decision on credit before purchase. With mobile phone penetration at an all time high, for example in early 2009 there were around 4 billion mobile subscribers worldwide[3], most people have first hand experience at credit decisioning in an instant. Customers now expect that expediency of service when making credit decisions across all sectors.

The flipside to the newly anticipated level of expediency of credit decisions is risk mitigation. As the sales team can ill afford to lose any opportunities due to a lengthy credit decisioning process no business can afford to take on bad payers and bad debt when cash-flow is at a premium. Credit managers are being put into a position of shorter than ever lead times and even greater pressure to not make errors. The role of the credit manager is one at the forefront of a company's success or failure.

Within this high pressure situation credit managers on the whole understand that their roles have changed. The credit department has moved to being an enabler of sales. However without the tools to deliver this higher output credit managers can be reduced to data operators managing the increased churn provided by sales teams. This leads to an unsatisfactory scenario where tension is created between sales and credit teams and Day Sales Outstanding (DSO) numbers remain high.

The critical factor to success is developing a method whereby 'black and white' transactions are processed efficiently and with little cost to the business and more complex applications are managed by skilled credit managers. This method uses technology to ensure that the ultimate value is derived from the credit management team. Automation of some of these key processes is a crucial element to this approach succeeding.

[3] Source: Paul Budde, "Mobile Communications in Statistics, Trends and Forecasts"; April 14, 2009

WHAT IS AN AUTOMATED CREDIT DECISION?

Automation of credit decisions is traditionally achieved through software that automates and manages a company's credit assessment functions. The software makes a credit assessment via the use of credit scorecards which use decision parameters to assess payment risk and suitability.

A typical transaction is completed faster using automation as a credit controller simply needs to collate the key information and then key it into the system. Using the pre-set criteria the system will assess the level of risk with an account and make a definitive judgment on a course of action based on those criteria.

An automated credit solution will most commonly provide;

- screens or a data interface
- checking of an application against any internal watch lists or black lists
- flagging of any specific industry or organisation types requiring detailed assessment
- checking of payment histories and credit limits for existing customers
- the appropriate bureau files for the organisation, principals and potentially any associated organisations
- checking of all the bureau files against predefined adverse rules
- calculating risk scores or utilising a bureau score
- a decision (typically accept or decline, refer however can be conditional)
- workflow queues for any manual tasks
- a link to approved applications directly from the billing/accounting system
- reporting and analysis to enable reviews of the implemented rules.

Automation also has the benefit of allowing the company's existing credit managers to have greater focus on more complex transactions and compliance management. This again reduces exposure and risk.

Credit automation systems can be completely outsourced via a third party company, can be added to or built on to the existing IT infrastructure, or even hosted via the web and accessed via a secure link or gateway known as software as a service (SAaS) or web services.

Automation of credit decisions still require the skills and knowledge of credit management professionals to assess the high value or high risk decisions, but what it does achieve is reducing the time these same skilled managers spend on the everyday credit decisions. Automation also improves adherence to corporate governance standards and increases the ability to track fraudulent payment behaviour through tighter control of the accounts receivable process. Automation, in conjunction with scoring, can improve cash flow through faster response times and more consistent decisions. Automation also allows companies to better manage their existing accounts, making it easier to see risk patterns and identify those accounts that need attention.

BARRIERS TO AUTOMATION

If automation of credit decisioning is best practice why haven't more organisations adopted it before? The task in many of these cases lies in challenging the status quo of operations.

The perceived barriers to adoption can best be summed up under the three headings:

1. Cost/capital expenditure – how can I afford to implement and manage such a large and potentially expensive piece of IT infrastructure?

2. Technology – how will the technology I implement interact with my existing systems (CRM, ERP) and will I be able to share data across the systems?

3. Accuracy – how do I know that the information provided to me by the automated credit decisioning process is accurate and able to provide data to make sound business decisions?

In addition some credit teams fear that automated credit systems displace their expertise. However, as we will see, nothing could be further from the truth. Automation makes the simple decisions faster and allows experienced credit managers to focus their efforts and skills on the credit decisions that matter – those that are high risk.

ADDRESSING THE BARRIERS

a) Cost/Capital expenditure

With margins ever decreasing and the need to reduce operational costs increasing, securing sign off on a capital expenditure investment has rarely been more challenging. The typical cost of a solution is dependent on the level of infrastructure required to manage. Solutions can be hosted via the web and priced on a purely transactional basis or they can be imbedded within a company's mainframe or network structure (typically applicable to banks and large financial institutions.)

In a February 2009 survey of 839 U.S credit managers most respondents that use scoring systems felt that the decision was primarily based on a desire to create efficiency. Other reasons cited include improvement in corporate governance, workload management and better service to customers. Surprisingly ROI was not viewed as a major factor in the development of a credit scoring system and automation[4].

However, undoubtedly as economic pressures increase improved service and a reduced workload are unlikely to be persuasive enough to support capital outlay from a CFO under pressure to keep costs at a minimum. The answer to determining return on investment is one which requires a more holistic approach to credit management.

This begins with an analysis of the impact of automation on approval rates and reduced risk. Dun & Bradstreet data shows that on average automation increases credit approvals by 20 percent providing your business with increased sales and cash flow. Furthermore, automation allows credit personnel to focus their expertise on the more risky decisions that need human intervention. The capacity to have a more detailed and expert focus on these decisions ultimately contributes to reduced risk and lower bad debt.

In addition to these benefits of increased sales and reduced risk there are a number of cost savings and efficiencies. For example, the implementation of a typical integrated commercial credit decisioning system costs approximately $30,000 [5]. That implementation will result in complete automation of the credit process which in some cases can remove four to five hours per day of data input from a credit controller.

This has been traditionally an expensive exercise as it equates to 50 percent of the credit controller's annual salary to complete basic data entry work. With the annual average salary expectations of a Credit Controller approximately $54, 000 per annum[6] the average implementation can expect to see a full return on investment in just over twelve months time. In addition, the above scenario does not include the time spent by Credit Managers reviewing and preparing data to justify an approval or decline an application. In some cases this may take up to seven hours a week equating to sixteen percent of their time over an annual period. This task can also be automated according to their specific credit policy and included in the automation process.

[4] Source: CRF Online, "Credit scoring", February 2009
[5] Source: Decision Intellect
[6] Source: Accountability.com, "2008 Salary Survey, December 2008

The introduction of an automated credit decision system also benefits the credit collection function by:

- Automating data entry linking that data with existing customer relationship management systems
- Keying in information at the point of sale – reducing duplication
- Reducing the time spent in administering mundane tasks and potential errors in opening accounts
- Freeing time for skilled credit managers to increase overall approvals – thereby increasing revenue.

Credit scoring and automated decisions play a critical role in the risk assessment process of many organisations, with figures indicating that more than seventy five per cent of mortgage lenders and ninety per cent of credit card providers in the developed world now use credit scores to determine the risk associated with a loan[7].

Automation of this process further reduces risk and the potential for fraud by eliminating the human interaction in the assessment process and again making it easier to partition an accounts portfolio. Automation also gives credit managers adequate time to use their industry knowledge to make accurate risk assessments.

Finally the implementation of automated credit decisions ideally positions a company for growth by adding agility into the new business process. The speed of response of an automated credit decisions enables new customers to be up and running and more importantly being billed, faster than any traditional manual method of approval.

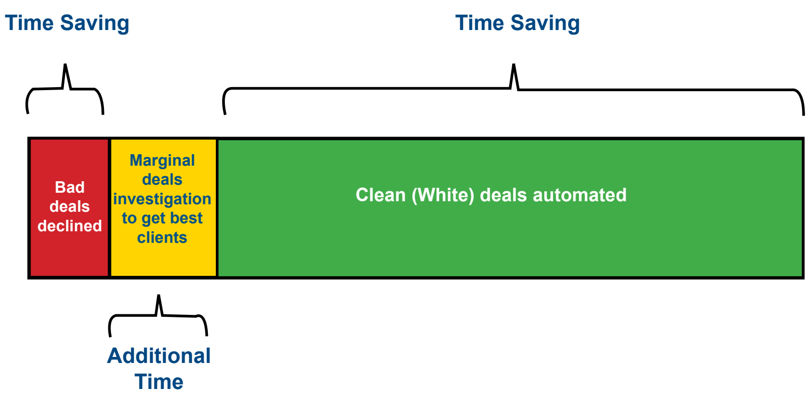
Therefore despite the initial outlay of cost, when building a business case for automation factors such as improved efficiency, simpler adherence to corporate governance requirements, decreased fraud risk and improved approval rates must all be taken into consideration.

Team	Staff	HRS/Day	Salary	Hourly Rate	HRS/Week	HRS/Year	Cost of processing applications	% Cost
Credit Controllers	2	2	$45,000.00	$21.63	10	520	**$22,500.00**	**50%**
Credit Manager		1	$65,000.00	$31.25	5	260	**$8,125.00**	**13%**
Total			**$110,000.00**	**$52.88**	**15.00**	**780**	**$30,625.00**	**63%**

Based on number of hours, of a Credit Controllers daily task in processing and assessing a credit application.

Based on number of hours a Credit Managers daily task in reviewing and assessing a credit application.

Potential Cost reduction with automation		
50%		
Team	**HRS/Year**	**$ Savings**
Credit Controllers	260	11,250.00
Credit Managers	130	4,062.50
Total	**390**	**15,312.50**



[7] Source: The sense behind credit scoring: a briefing for policy makers. American Financial Services Association 2005

b) Technology

One of the key challenges within IT implementation is how it will interact with a company's existing systems and IT infrastructure. Creating an automated credit decisioning tool is no exception.
To address this concern a number of automated credit decisioning tools utilise web services or software as a service (SAaS) to deliver functionality and not impact upon a company's existing infrastructure. Software as a service works by hosting the software via the Internet with the company using the solution on a per need basis. Software as a service provides a number of distinct advantages including[8]:

- Saves money
  - o Lower IT costs
  - o Economies of scale
  - o Pay as you go

- Saves time
  - o Because you eliminate many of the typical implementation tasks associated with licensed software and because the software is already up and running deployment time is significantly shorter with a SAaS application than a traditional one

- Focus your technology budgets on competitive advantage

- No set up costs required to support infrastructure upgrades – fees managed on a subscription basis

- Gain immediate access to the latest innovations.

When a business subscribes to a web-hosted application using software as a service, an organisation is free from supporting high-cost, time-consuming IT functions to support the application.
These costs can include:

- Purchasing and supporting the server infrastructure necessary to install and maintain the software in-house.
- Providing the equipment redundancy and housing necessary to ensure security, reliability, and scalability.
- Maintaining a labor-intensive patch and upgrade process[9].

Software as a service makes the application and updates readily available to the user and is as easy to use as flicking a switch. Costs can be managed more effectively via a regular subscription model and companies can update to the latest technology as soon as the vendor does. While the software as a service model will not necessarily suit all business models it does provide a high degree of flexibility, particularly for smaller companies who may not possess the necessary infrastructure to consider an imbedded automation application. Of course, this also means that the cost savings outlined earlier are even greater as there is not the same initial upfront cost.

[8] Source: Trumba.com, "Five benefits of software as a service" – December 2007.
[9] Source: Trumba.com, "Five benefits of software as a service" – December 2007.

c) Data accuracy

Shortly after Easter 2009, a newly installed computer system in the United Kingdom sent out late notices to over 3,000 Derby City residents who had already paid their Council Tax. In response angry residents lit up the council switchboard with their outraged responses[10]. The lesson behind this story is simple – even with automated credit decisioning data is still critical. The age old adage of garbage in, garbage out still applies.

On average scorecards provide a 15-20 percent improvement in bad debt reduction[11]. However accurate and up to date information is still critical to producing optimum results. Using internal and external data sources is central to making this a success. An automated credit decisioning process brings together the sources of information utilising them in the scoring process.

Accuracy of data is often seen as the greatest challenge in credit management. Based on our experience with the international D&B database, we've found that in just one hour:

- 200 business telephone numbers will change or be disconnected
- 54 business addresses will change
- 92 directorship (CEO, CFO, etc.) changes will occur
- 74 new businesses will open their doors
- 7 companies will change their names

And every year in Australia:

- 128,453 new companies commence trading
- 4,147 companies change their name
- 17,425 companies change their place of business
- 7,802 companies and 4,128 businesses cease operations

This data churn can cause significant inaccuracies within databases. Fortunately, these inaccuracies can be detected and corrected. By matching customer information against a current source of business information, customer records can be enriched with the most recent information available. A process like this can occur in real time as the data is being entered or as a batch process overnight, weekly, monthly, or at any other interval based on needs and volume. This will provide an accurate source of data that a business can use[12].

[10] Source: John Ozimek - The Register, "Credit management needs computer automation", May 18, 2009,
[11] Source: Decision Intellect
[12] Source: Dun & Bradstreet Australia, "Knowing your customer takes more than IT" , May 1, 2009

Credit Analysis Technology in a Changing Business Environment

Credit and finance executives gave the following advice to their peers when considering automated credit technology:

Include a broad coalition of stakeholders from your IT, sales, and finance groups in recast-ing your credit function. As credit decision-making touches more business processes, it affects the work of more people within a firm. Many of these effects are positive—more sales leads, easier collections, and so on—but new technology can disrupt well-worn ways of performing tasks. Automation needs close collaboration with the IT and systems groups as a key source of success.

Pick a scoring method, understand it, and then test it. You cannot be complacent in your scoring process. You cannot say, 'I've got a scoring system, therefore, I've got no issues.

Start simple and then expand. It's tempting, say interviewees, to try to do too much too soon with new technology. Accordingly, automated credit veterans call for companies to be ambitious but also careful. One credit manager remarked that, although speedy decisions were an immediate benefit of automated credit, he found additional process improvements – notably in staff training and regulatory compliance – grew naturally from his team's use of the system.

Let the technology do what it does well and deploy analysts to higher value tasks. When queried about the impact of new technology on rank-and-file credit staff, most executives in this study acknowledged that there had been some initial reluctance among seasoned credit staff. But as they began to use the technology routinely, employees clearly saw automated credit as a tool to help perform their jobs better—and not as a replacement for their knowledge and expertise.

Source: Credit Analysis Technology in a Changing Business Environment, CFO Publishing Corp and Dun & Bradstreet

AUTOMATED CREDIT DECISIONING AT WORK

Trade X is a Equipment Supplier firm with a high turnover. In a typical month Trade X was manually reviewing approximately 250 credit applications. With each application requiring 30 minutes to review credit management staff members were spending a total of 125 hours every single month assessing credit applications, requiring a minimum of one full time staff member to manage the process.

To address this issue Trade X opted to go out to a tender process to automate some of its credit management process. After conducting an internal review Trade X determined that automated credit decisioning would provide significant benefits for credit assessment and compliance. Importantly Trade X also saw that automation could improve some elements of operational efficiency and expedite the process of signing up new customers.

Following a detailed tender process Trade X opted to partner with Decision Intellect and its Inteflow product to develop an automated credit decision system. Inteflow is an application designed to provide significant business functionality, providing businesses with the following key functions;

- The power to change the rules and decision flow to suit changes in the credit process
- Internet based access to the flow configuration allowing easy updating and migration of changes
- Improved customer service through improved control and performance
- Reduced implementation stress through standard interfacing options.

Through a process of consultation with Decision Intellect Trade X determined that 70-80 percent of credit applications would be automatically processed. This decision was based on the development of the ideal processing parameters for the credit scorecards that will be used to develop the automated decision model. By automating up to 80 percent of these applications Trade X will automate 200 decisions every month. Based on an average of 30 minutes per credit decision this is saving Trade X 100 hours every single month.

In an effort to improve approval rates Trade X agreed to review in more depth the marginal deals to work out terms that would be acceptable to complete a transaction. As the initial assessment has been automatically conducted these accounts only require 30 minutes to complete an in-depth analysis. This now takes 25 hours a month.

After the installation of the automated credit decisioning system Trade X's two credit controllers who were spending seventy five percent of their time assessing applications were able to refocus on following up with debtors. As a result Trade X saw an increase in cash-flow as credit controllers had more time available to contact clients and take better control of their ledgers. Payment terms were also negotiated and monitored dependent upon client risk category – thereby ensuring that those of the highest risk level were better monitored to reduce payment times.

Other operational improvements included:

1. Bad debt potential was reduced with an improved ability to identify problem accounts before they became an issue
2. Sales
   a. The process of opening accounts was dramatically faster than previously possible – improving both customer relations and cash-flow
   b. Terms and Conditions were adapted dependent on the risk category of the client. These changes could then be communicated immediately to sales

3. An improved ability to identify credit risks faster via improved efficiencies for skilled credit controllers

4. A reduction in Day Sales Outstanding (DSO) reduction due to Adjusted Trial Balances (ATB) being able to be reviewed more thoroughly

5. ATB of 90-120 days reduced to more acceptable levels of under three percent

6. A fifty percent reduction in manual data entry for credit staff saving approximately $15, 000 worth of value in time over one year

Prior to using automation, credit managers were also manually checking every application for irregularities. Application faults were predominantly discovered due to the personal history of the individual credit managers/controllers with each account. By building a set of parameters into the scorecard, automated credit decisions can reduce single points of dependencies within the credit department.

For Trade X the addition of an automated credit decisioning tool enabled its credit managers to focus on the high value and more complex transactions. This in turn meant that the credit department began to not only help the company cash-flow but also helped the Trade X sales team to assess clients faster. As a result sales applications were processed more efficiently and the company had greater flexibility with new accounts.

CONCLUSION

The ultimate benefit of automating credit decisioning is the harnessing of a company's skilled credit management resources to focus on credit decisions that matter. In an era of record unemployment and continuing economic concerns companies cannot afford to allow credit staff to not be maximising their potential.

The barrier of technology is no longer prevalent through the advent of lower cost automated solutions utilising technologies such as software as a service. The barrier of accuracy can be addressed by using multiple sources of independent data to 'wash' against internal sources and the barrier of cost can be readily recouped by freeing up skilled credit managers to focus on high value transactions. Furthermore by allowing skilled credit managers to focus on the more 'at risk' clients this enables an organisation to reduce the opportunity for bad debt through detailed investigations of potentially 'marginal' deals. Perhaps even more importantly credit managers can build a 'good' credit profile enabling sales teams to target the most attractive customers.

The misconception that automating credit decisioning generally results in staff reductions is rapidly dissipating. The reality is that within the current economic environment automating credit decisioning not only allows for faster, cheaper and more effective credit decisions but allows skilled credit managers to fulfil their capabilities in their roles. Being able to have customers online and billing as quickly as possible is critical in ensuring income continues to flow and organisations stay afloat.

ABOUT DUN & BRADSTREET

D&B is the world's leading provider of business-to-business credit, marketing and purchasing information and receivables management services. D&B manages the world's most valuable commercial database with information on more than 150 million companies.

Information is gathered in 193 countries, in 95 languages or dialects, covering 186 monetary currencies. The database is refreshed more than 1.5 million times daily as part of D&B's commitment to provide accurate, comprehensive information for its more than 150,000 customers.

The senior management group bought out the Australasian operations in August 2001. It was the first MBO of a wholly owned subsidiary in D&B's history worldwide.

Today Lazard Carnegie Wylie owns an approximate 90% stake in DBA and the local management team a 10% stake.

About Decision Intellect

Decision Intellect (DI) was formed by experienced decisioning specialists to provide the highest level of credit risk management consultancy, products, support and services in Australia.

DI's flagship decisioning product, Inteflow, provides one of the most technically and functionally advanced credit assessment tools on the market. DI's full suite of operations include: credit risk management, multi bureau environments, scorecard development and monitoring and consultancy and support around the credit lifecycle for businesses.

Since inception, Decision Intellect has become one of the fastest growing decisioning companies in Australia providing products and services to many organisations within this region. The company's experience and expertise in credit decisioning within Australia allows them to offer businesses much more than just a software solution.

In 2008 Dun & Bradstreet completed its full acquisition of Decision Intellect providing our customers with greater access to a more efficient credit management environment through automation. Decision Intellect continues to operate under its own brand and is run by its founding principals.

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