



e-business case studies

ASDA Stores, Ltd.:

Sold on the value of e-business



Putting e-business to Work

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ASDA Stores, Ltd.

The Company

- Headquartered in Leeds, Yorkshire, England
- Revenues of \$13.1 billion (£8.2 billion) in 1998, up from \$12.1 billion (£7.6 billion) in 1997
- 230 stores across the United Kingdom

The Public Web Site

- www.asda.com

The Solution

- Lotus Domino-based intranet

The Benefits

- Streamlined communications between ASDA's stores and its corporate headquarters
- Lower communications, printing and mailing costs
- Lower administrative costs
- Improved execution of tactical instructions at the store level
- Estimated overall annual savings of \$800,000 (£500,000).

The Technology

- Lotus® Domino™
- Lotus Notes®
- IBM RS/6000®
- IBM Global Services

Overview

e-business Case Study: ASDA Stores, Ltd.

With 230 stores and 85,000 employees – or “colleagues” – ASDA sells food, clothing (under its George brand) and home and leisure merchandise. ASDA is the third largest grocery retailer in the United Kingdom, with a 13% market share, behind Tesco and Sainsbury. Headquartered in Leeds, Yorkshire, England, ASDA focuses strongly on employee involvement and collaboration. This case study addresses ASDA's use of Lotus Domino to streamline communications between its stores and ASDA House, its corporate headquarters. As discussed in this case, ASDA has harnessed the capabilities of Domino to make it a potent decision-making tool.

ASDA's e-business Solution

- Transform business processes
- Build new applications
- Run a scalable, available, secure environment
- Leverage knowledge and information

- Primary e-business solution attribute
- Secondary e-business solution attribute

e-business Solution Profile



ASDA's e-business solution is a Lotus Notes and Domino-based intranet linking its Leeds headquarters with a network of 230 stores across the United Kingdom. The main purpose of the ASDA intranet, known internally as Infonet, is to improve the efficiency of communications throughout the organization, thus increasing productivity and ensuring ASDA stores have access to the most current information. ASDA's Infonet platform runs on two RS/6000 F40 servers located in IBM's Web hosting facility in Warwick, England. Previously, the platform had run on a single RS/6000 server located within its own headquarters. ASDA's Domino content is managed by Domino applications written by the IBM Global Services development team. The IBM team also incorporated JavaScript code into various portions of Infonet to augment its functionality.

Integration of the Infonet platform and ASDA's legacy systems has thus far been limited. Instead, data underlying the Domino applications is stored in unique databases created and maintained by ASDA employees using a Lotus Notes client. To date, publishing accounts for the largest share of ASDA's applications, not surprising in light of ASDA's focus on improving overall performance through the more fluid exchange of information. According to Paul Baxter, ASDA's General Manager of Electronic Telecommunications, one of the earliest and most successful applications has been the online publication of Merchandising Briefs – documents which use line drawings to tell store managers how to layout fixtures, or bays, in ASDA stores. “This was a very big win for us, because store managers never knew whether they were working with the latest brief or an out-of-date brief,” says Baxter. “This gives them confidence that they're working with the latest version of layout instructions.”

ASDA's Merchandising Briefs are part of a larger set of applications known as Market Hall, which provides ASDA store managers with tactical instructions and information on trade-related issues. Baxter notes that decision support capabilities, like those of Market Hall, represent a common thread running across a number of ASDA's most successful intranet applications. He cites, as a case in point, a Web-based customer service desk that reports to each store key statistics on performance variables such as queue lengths, checkout scan speeds, and other elements that directly affect customer experiences in the stores. Baxter notes that the direct aim of this capability is to help stores make day-to-day decisions that will improve on these key parameters, thus improving satisfaction. “If a store experiences longer than tolerable queues, these reports allow managers to improve the scheduling of operators on the checkout,” says Baxter.

“I was coming across all the familiar problems such as people not seeing things, things getting lost, and stuff arriving late. All the generic questions that come up time and again in a business of this size. Many of these issues are very simple, such as ‘How do I do this?’ or ‘Who do I talk to?’”

— Paul Baxter, ASDA's
General Manager of
Electronic Telecommunications

Featured IBM Technology

Lotus Domino

The Domino family of servers delivers messaging, applications and online collaboration fast and reliably for organizations from the smallest businesses to the largest enterprises. Domino helps you reduce costs by making the server easier to administer and the desktop easier to manage. With Domino, you'll get the flexibility and openness you need to harness the power of the Web, along with the security you want to keep systems running smoothly and to prevent unauthorized access.
www.lotus.com/domino

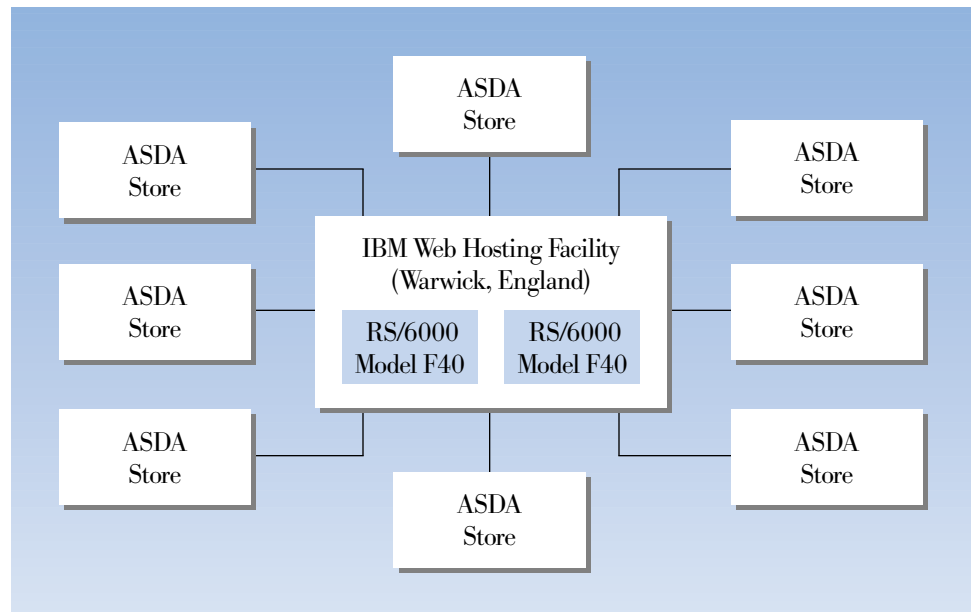
Lotus Notes

Lotus Notes is state-of-the-art e-mail, calendaring, group scheduling, Web access and information management — all integrated in an easy-to-use and customizable environment. If you need a simple way to harness a world of information, Lotus Notes is the software that lets you securely, easily and efficiently manage information and collaborate. It is the leading integrated software for the Internet, offering an easy-to-use, open and powerful way to work.
www.lotus.com/notes

Another decision tool delivered via ASDA's Domino-based intranet is a service that informs store managers of the local weather forecasts online. Formerly delivered to ASDA's stores via a premium fax service — at a cost of approximately \$80,000 (£50,000) annually — the service allows store managers to make intelligent stocking decisions based on expected conditions. "Store managers need to know whether to stock up on strawberries or potatoes," says Baxter. "There is a real commercial benefit having this information readily available. Applications like this show that our intranet is not just a collaborative tool — it's also a decision-making tool."

ASDA's Green Pages include a series of directories, such as in-house phone books, site information, maps, and store details, while ASDA's goods and services directory allows ASDA employees to look up product details. ASDA delivers internal announcements and press releases through its ASDA Today service. Under ASDA's intranet security protocols, the most exclusive data access is provided to content authors who are authorized to manage Infonet's content, and store managers, who have access to Merchandising Briefs and discussion groups. Access is controlled through a user ID and password. All other Infonet content is open to any of ASDA's store or headquarters employees. "As a general rule," notes Baxter, "ASDA took the view that the intranet should be available to everyone in the organization."

One of ASDA's most recent enhancements to the Infonet solution is an online Store Self-Assessment system, launched in June 1999. Under the system, each store assesses its own performance against a number of operational standards. The results of the assessments are posted to a Notes database, which generates reports at ASDA's corporate headquarters. The results of the assessment are also used to create a tailored list of actions for specific ASDA stores designed to improve performance.



Source: ASDA

Figure 1. Basic System Architecture of the ASDA e-business Solution

Planning and Decision Environment



ASDA began planning its Web-based initiative in late 1997, spearheaded by Baxter, who was then ASDA's head of communications. Baxter believes that his proximity to ASDA's day-to-day communications over traditional channels – mainly voice, data, and paper – made him uniquely suited to articulate ASDA's next-generation communications strategy. "I was coming across all the familiar problems such as people not seeing things, things getting lost, and stuff arriving late," says Baxter. "All the generic questions that come up time and again in a business of this size. Many of these issues are very simple, such as 'How do I do this?' or 'Who do I talk to?' Basically, I was coming across all the frustrations that people had with the way in which we communicated back then."

While Baxter points to ASDA's underlying needs as the main driver of its intranet strategy, he further notes that the strategic outsourcing agreement with IBM Global Services established in 1997 provided a catalyst to those developments. "After the partnership deal with IBM was announced, we looked at an intranet as a more reliable means of distributing information widely to desktops and laptops around the organization," says Baxter. "At the time, there were all these messages coming at us about how easy Web technology was to use, making access to information easier via browsers, search engines, and other tools."

One of the earliest phases in the planning process was to conduct a workshop involving ASDA planners, IBM Global Services staff and a number of end users. The basic goal of the workshop was to establish a dialogue between ASDA's end-user community and the platform's planners. The education and opportunity workshop was designed to familiarize ASDA end users with the idea of an intranet, and, more importantly, to leverage end-user feedback to identify opportunity areas for intranet applications. In addition to Baxter, the ASDA planning team included its Business Systems Manager, a senior member of the IT organization charged with coordinating technology adoption across the company. The issue of Web authoring tools represented a major concern of the Business Systems Manager, who sought to obviate the need for application programmers to perform ongoing content generation and management.

Featured IBM Technology

RS/6000

As the fastest UNIX enterprise server available, IBM's RS/6000 delivers business value while supporting the newest applications in e-business. If you are looking for industry-leading performance for your e-business applications, you don't need to look any further than RS/6000, the engine behind millions of e-business transactions completed every day. www.rs6000.ibm.com

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“What particularly impressed ASDA about the IBM approach was the speed with which the project team picked up the flavor of the business culture here, and did things quickly, cutting through internal red tape to get things done. There was a real ‘can-do’ attitude.”

— Paul Baxter

The IBM Global Services team included both on-site staff from the IBM outsourcing team, as well as members of IBM’s e-business Solutions team. From the outsourcing team was a technical strategist whose primary responsibility was to ensure a proper fit between ASDA’s e-business solution and its broader IT strategy, while the e-business Solutions team included a graphic designer, a programmer and various Web consultants.

According to Baxter, the workshop was successful in generating numerous ideas for intranet applications, many of them gleaned from interviews with potential content providers and authors. He further notes that the planning process as a whole was conducted with real business value and usability as the foremost considerations. “This was not an IT-led project, it was very much a business-led project. The process was reliant on collaboration with end-users throughout the ASDA organization.”

According to Baxter, IBM’s status as ASDA’s legacy outsourcing vendor – as well as the fact that ASDA is a Lotus Notes shop – gave it an inside track on becoming ASDA’s Internet solutions provider. Nonetheless, Baxter emphasizes that the decision to go with Lotus Domino as the backbone of its intranet was driven by the merits of the product itself – notably “the scalability and resilience of the Domino platform vs. other products on the market,” says Baxter. Later, as the project progressed, he was increasingly pleased with IBM Global Services’ approach to building the solution. “What particularly impressed ASDA about the IBM approach was the speed with which the project team picked up the flavor of the business culture here, and did things quickly, cutting through internal red tape to get things done. There was a real ‘can-do’ attitude. They were able to understand very quickly what issues were most important – which is hard in a business of this size.”

Goals and Business Drivers

ASDA's primary goal in creating a Domino-based intranet was to streamline and accelerate the flow of information within the company. The main focal point for ASDA was the linkage between ASDA House and the company's network of stores. Despite rapid growth within the company, ASDA had continued to rely on relatively antiquated communications methods, such as postal delivery of paper documents, which often led to slow delivery of relevant content.

In addition to speeding up communications, Baxter saw the Domino intranet as a way to reduce costs along the way, including £40,000 for telecommunications costs between stores and ASDA headquarters. "We wanted to reduce our communications cost, from the labor required to field calls, to telecom costs and other administrative overhead," he says. Other important sources of cost savings expected by ASDA included the cost of paper, printing and photocopying as well as the cost of physically distributing that paper to various stores.

Ultimately, says Baxter, ASDA's decision to embrace intranet technology reflects the need to better compete in a dynamic retail environment. "Retail is a very fast-moving and complex business," he says. "There's always a lot going on, which makes it critical that our 230 stores get their information straight away – and they get very frustrated when they can't." How does ASDA's intranet investments translate into increased competitiveness? Baxter points out that by simply reducing the incidence of stores not getting information when they need it, store policies and tactical instructions are more likely to be executed properly. "Our intranet takes a couple of days out of the lead time for getting information to stores. So by delivering, for example, a promotional brief over the intranet, we would have substantially improved pricing accuracy in the stores."



Implementation Timetable and Strategy

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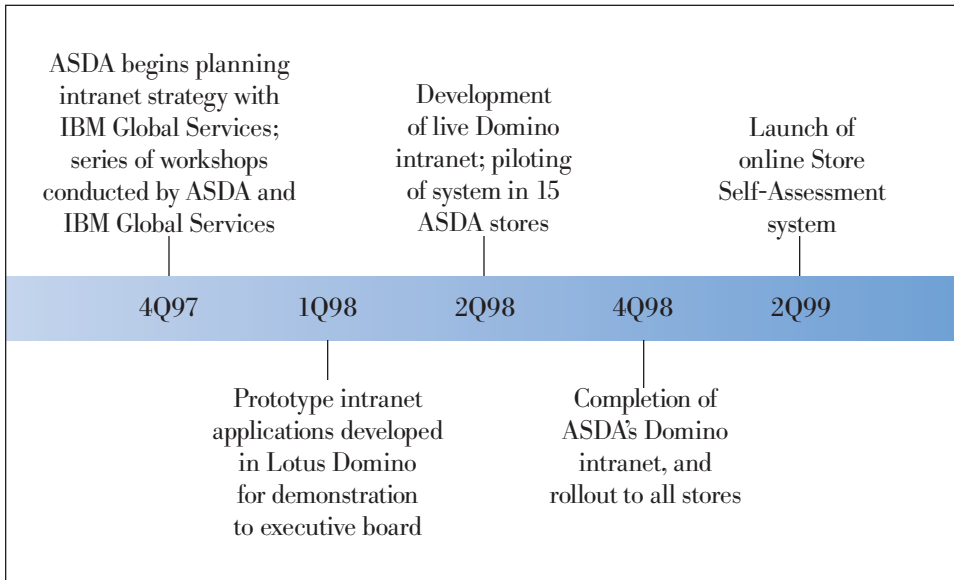
— Paul Baxter

After selecting a range of intranet applications based on feedback gained through its workshops, the ASDA/IBM Global Services team then developed a prototype system that included demonstration Domino applications which could be augmented to create production applications. After the applications were selected, development of the prototype required approximately four weeks and was completed in January, 1998. This was followed immediately by the development of live systems by the IBM Global Services development team, which was comprised of as many as four Notes programmers working with the technical architect, a graphics designer and a project manager. Content for the intranet was authored by ASDA personnel. During this same 12-week time frame, IBM Global Services was concurrently designing and implementing the technical architecture of the intranet.

Following the completion of the live system, ASDA then conducted a series of rigorous tests in its testing laboratories to ensure adequate performance. The first stage of the test focused on systems, with the main concern being that the browsers deployed in the stores functioned satisfactorily with the Notes applications. This stage employed test scripts written by the IBM development team. The second stage, User Acceptance Testing, focused on usability and was conducted by a testing specialist and ASDA personnel. All told, the testing process required seven weeks. After successfully testing the system, ASDA began piloting its Domino intranet in May, 1998 in 15 of its 230 stores (constituting a single ASDA region). The system was rolled out to all ASDA stores in November, 1998.



After viewing the prototype, ASDA's board gave Baxter's team the go-ahead to proceed with the production system. Baxter established the end of June as the targeted completion date for the pilot implementation. According to Baxter, it was in the ensuing stage – when the team began to design and build 'with a vengeance' – that IBM shined most brightly. "We achieved that goal," says Baxter, "and I can say, with a clear conscience, that IBM and its people were absolutely first class. They came into an organization with its in-house protocols and processes and managed to quickly build a network of contacts here and cut through the red tape. It was very impressive indeed. We were also very impressed with the project management and skills sets they deployed. Clearly they've brought a lot of knowledge to the project and really showed us a lot of commitment."



Source: ASDA

Figure 2. Implementation Timetable for the ASDA e-business Solution

Return on Investment

Thus far, ASDA's most immediate benefits from the Domino intranet include more efficient and informative communication between ASDA House and ASDA stores, as well as streamlined operations within its administrative offices. ASDA has also experienced attendant cost reductions in:

- Printing
- Postage
- Shipping
- Administrative labor
- Telecommunications costs

Baxter estimates that within its headquarters, ASDA was spending \$64,000 (£40,000) annually to address telephone-based inquiries from store personnel related to merchandising briefs and associated information. "Colleagues working in ASDA House were more than happy to avoid that sort of clerical work, while store managers immediately saw the benefits of getting the information that was relevant to them, instantly," he says.

Overall Benefits	
Function	Benefit
Internal Communications	Faster, more complete and more accurate information
Administrative Overhead	Reductions in administrative costs associated with telephone-based inquiries from store employees
Cost Savings	Reduced printing costs Reduced mailing and shipping costs Reduced telecommunications costs Reduced fax service costs (intranet-based weather forecasts)
Store Operations	Improved stocking and replenishment capabilities Improved execution of store policies and tactical instructions (merchandising, pricing, etc.)

Source: ASDA

Figure 3. Benefits of the ASDA e-business Solution

While Baxter points out that ASDA does not plan to explicitly track ROI metrics for its Domino intranet, he nonetheless estimates that ASDA could save as much as \$800,000 (£500,000) annually from reduced cycle times, reduced printing, photocopying, distribution of paper, and phone-based inquiries. Moreover, he thinks that in the long run, ROI will mushroom as ASDA puts more sophisticated applications into place that are fully integrated into ASDA's legacy systems. "We believe that the highest returns will be seen in sophisticated database applications, and I think payback will be very rapid indeed," he says.

Baxter also sees significant soft benefits for ASDA from the Domino intranet, since Domino's capabilities directly complement ASDA's highly collaborative culture. "We are a business that likes to generate a lot of involvement among the people who work for us. The major benefit for ASDA derives from our intranet's ability to provide intangible benefits to our employee base, thus improving the quality of life for our employees. With 85,000 colleagues, those benefits really add up."

"We believe that the highest returns will be seen in sophisticated database applications, and I think payback will be very rapid indeed."

— Paul Baxter

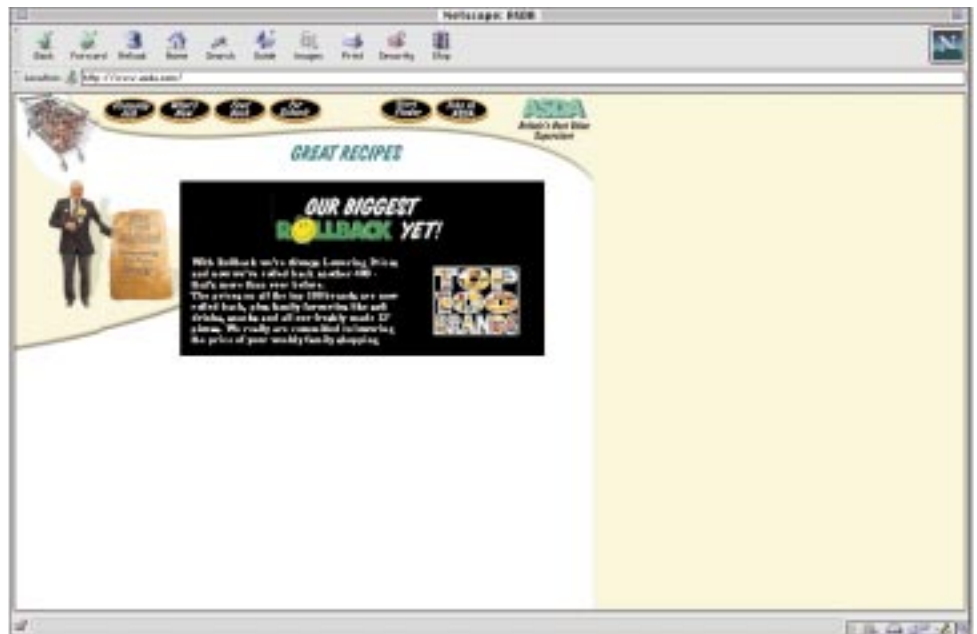
Implementation Issues/Lessons Learned

“We were very impressed with the project management and skills sets IBM deployed. Clearly they’ve brought a lot of knowledge to the project and really showed us a lot of commitment.”

— Paul Baxter

ASDA’s main implementation issues relate to the need to stimulate usage of the Domino intranet platform across the company. “We need a big piece of marketing to try and encourage usage,” says Baxter, who further notes that a relatively low level of technical sophistication within a portion of the workforce will also likely affect the use of the intranet. Content authorship also represents another critical implementation issue facing ASDA going forward, with Baxter acknowledging ASDA’s need to do more author/publisher training, in addition to its extensive end-user training. At present, ASDA’s content is generated by a network of authors throughout the organization, mainly located in ASDA’s Leeds headquarters. “Right now, of the 85,000 potential users of ASDA’s intranet, there are probably a few thousand active users. This compares with about 30 authors and publishers,” notes Baxter.

ASDA’s main implementation issues were primarily technical in nature. The most significant issues related to in-store PC configurations. According to Baxter, the extreme maturity of many of ASDA’s in-store desktops required that they employ a “lowest common denominator approach” for their browser strategy. This, in turn, had implications for the prototype testing process, since browser performance problems associated with the prevailing desktop environment extended the testing period from four weeks to seven weeks.



Future Plans

According to Baxter, ASDA's future intranet plans will focus on workflow and extranet applications. "By focusing on implementing workflow and extranets, we can create leveraged applications that will result in wholly new processes and capabilities. Whatever emerges, it will have to match the essential criteria of usefulness and ease of use." Under a sample workflow application, a job advertisement could be used as an application form which is submitted for approval and subsequent action, with further information added as the form progresses. Baxter points to the use of Domino for procurement – to order items such as uniforms – from ASDA suppliers, as an example of a possible future extranet application.

ASDA also plans to increase the extent to which Domino applications integrate with its back-end legacy systems. "Ultimately, we want to use the browser as the main interface to our management information systems, which would require proper integration with our data warehouse. At present, ASDA's data warehouse is accessible through a specialized client," Baxter notes.

Baxter sees ASDA's continuing technology partnership with IBM as critical to the ability to thrive in an increasingly competitive retail market. Indeed, ASDA's recent acquisition by Wal-Mart underscores how competition has spurred more consolidation among retailers. Baxter sees ASDA's current path as the ideal one. "Increasingly competitive conditions make it all the more important for retail companies to have advanced, cutting edge IT systems to make them compete better. With IBM as a partner, we feel we're positioned well to do this."



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