



## Success Story

### Fast Facts

#### Customer Profile

- Express Digital Media, part of the United News & Media group, creates and manages websites derived from Express Newspapers titles

#### Challenge

- To build standalone, profitable websites built around the core strengths of the Express Newspapers titles
- Several thousand simultaneous hits were expected
- A flexible content management system to simplify updating
- To extend the capabilities of the web sites easily and quickly

#### Solution

- Microsoft Certified Solutions Provider Solidsoft built a web infrastructure to facilitate the rapid creation of web sites

#### Benefits

- Creation of online-appropriate brand (AllAboutParents.com) and content-rich trading environment and community
- Manageable architecture allowing rapid development of web sites
- Increased revenue opportunities for advertising, sponsorship and e-commerce

#### Technology

- Microsoft® Windows 2000
- Microsoft SQL Server 2000
- Microsoft Internet Information Server 5.0
- Compaq Cluster Server and DL380
- XML, XSLT and COM+

#### Partner

- Solidsoft

### Express Digital Media



### Express Digital Media – AllAboutParents.com

*For a large media group, the creation of websites derived from its offline newspaper titles is more than “vanity publishing.” Express Digital Media was charged with building standalone, profitable websites built around the core content strengths of the Express Newspapers titles. IT consultancy Solidsoft built web infrastructure based on leading edge technology, backed up by Microsoft Consulting Services (MCS).*

#### Background

Express Digital Media (EDM) is part of Xilerate, the specialist online publishing division of United News & Media plc. EDM's specific brief is the creation and management of websites derived from the Express Newspapers titles, also owned by United News & Media. The newspaper brands include the Daily Express, the Daily Star, and The Express on Sunday. The Daily Express reaches almost 2.8 million adults daily in the UK of which 58.8 per cent (1,638,000) are ABC1s.

Executives recognised that the Daily Express is particularly strong in the area of parenting features content, with more than 20 per cent of its readership having children under 15. Seeing that an opportunity in the market existed for a site aimed at more than just the “new baby” audience and for fathers as well as mothers, it decided to publish a web site for parents, dealing with issues ranging from pre-conception to teenagers leaving home, from bullying at school to sex after childbirth.

EDM needed a solutions partner to provide a scalable, manageable and stable web infrastructure, which would enable rapid deployment of web sites. The web site creation infrastructure needed to be scalable, as executives were planning to bring other sites online in the near future and wanted their own IT staff to build and develop them. It also needed to be manageable and reliable as it was anticipated that thousands of people would want to access the site. The web editors working on the site also needed a custom-designed content management system.

#### Looking for the right partner

Because of the demands that would be made on the web sites, EDM executives realised they needed a partner experienced in building solutions based on leading edge technology. IT consultancy Solidsoft was ideal as it was a Microsoft Certified Solutions Provider specialising in internet development services. Founded by two former Microsoft Associates, Garth Pickup and Liam Kelly, the company's principal expertise is in Microsoft® SQL Server, Microsoft Visual Basic, web development and Microsoft Internet Explorer and includes COM+ (formally Microsoft Transaction Server), Microsoft Commerce Server and n-tier systems.

**Microsoft®**



*"The MCS partnership was invaluable to the web site project. It complemented our internal IT and partner resources, developing a solution based on Microsoft Windows 2000 architecture with the capacity to extend the capabilities of the web sites easily and quickly as market pressures demanded. We were able to speed up time to market by using SQL Server 2000 due to its inbuilt XML features and launch the site within deadline."*

**Shaun Brown, Web Architect,  
Express Digital Media**

Solidsoft built a web site creation infrastructure, complete with a suite of re-usable 'applets' (discreet bits of functionality that could be dropped anywhere in a web page).

This enabled AllAboutParents.com and CompanyLeader.com to be developed together, despite being very different in content and audience.

AllAboutParents.com has subsequently been voted site of the week by New Media Age magazine. EDM's infrastructure uses Microsoft Windows 2000, Microsoft SQL Server 2000, Microsoft Internet Information Server 5.0, Extensible Markup Language (XML), Extensible Style Language Templates (XSLT) and COM+, backed up by Microsoft Consulting Services (MCS). This division of Microsoft helps companies build solutions based on Microsoft technologies to meet business needs. It complements internal and partner resources and aims to transfer knowledge, empowering staff to build their own solutions.



#### **Confidence in Windows 2000**

Liam Kelly, IT director, Solidsoft, explains: "We chose Microsoft Windows 2000 architecture because we knew it was robust and could scale out as needed to meet the current and future demands of the Express web sites. Fundamental to the design of the solution was the use of XML and by using SQL Server 2000 as the database for the system we were able to speed up time to market because of its inbuilt XML features. This was crucial as the launch date had an immovable deadline." SQL Server 2000 was only in beta stage at that time but Solidsoft felt confident of being able to develop a solution using this database system because the company had the backup of MCS. This also gave EDM confidence in using leading edge technology – vital for any high-profile company.

#### **Requirements meetings**

Liam Kelly says: "First of all, we had meetings to establish exact requirements with the editorial team from Express Digital Media who explained that the Daily Express had a strong readership base and the company wanted a web site on which it could use articles from the Daily Express newspaper and from other sources within the group. It was also explained that the editorial team needed a content management system to update changes to web pages swiftly and easily."

Solidsoft then had a kick-off meeting with MCS to confirm understanding of deliverables, agree a plan of activities and schedule key meetings. A three-day Windows 2000 infrastructure workshop followed, comprising document and systems design. The two companies discussed how clustering and network load balancing would ensure the web site met EDM's demands for reliability, resilience and scalability.

#### **Development**

Solidsoft, MCS and the EDM technical team also discussed the specification for the system, including systems architecture design and the selection of Microsoft or other third party software. The architecture was designed so that future requirements could be incorporated. MCS then worked with Solidsoft to build a proof of concept. The team took a sub-section of the system design and developed it end-to-end, paying particular attention to any technical area considered high risk. At the same time, team members worked on the initial technical design. During the build and test process, MCS staff acted as reviewers and mentors to the Solidsoft project team. A scalability workshop followed with provision for further development and issue resolution once every two weeks.



### Listening to customer requirements

MCS validated the design of the solution based on Windows 2000 architecture. The solution enabled readers to rapidly access pages on the web site. Shaun Brown, web architect at Express Digital Media says: "EDM wanted to avoid the scalability and performance issues which can arise with highly dynamic database driven web sites. XML and XSLT were not only ideal for separating content from style and presentation; but also provided the mechanism for early rendering of web pages – that is the one-time pre-generation of static web pages from a backend data store, and subsequent transfer to a web server farm." Kelly says: "The information contained in the articles was static data – that is, comprising articles which remained the same – and we therefore wondered whether it would be possible to pre-generate the pages and store them somewhere else instead of on a database. Usually, when users access a web site, they go through a web server to get to a database. The database generates the required page each time and returns the page to the user.

"With the system Solidsoft and Express Digital Media have jointly developed, the static data pages have already been pre-generated through XML schemas using XSLT to create active server pages. These are ready and waiting for the user to access them. This means that the pages are returned much more quickly and the system can be accessed by many thousands of people at the same time." Access to the web site built using this system is much faster than other web sites because the pages do not have to be generated from a database each time.

Solidsoft also met the needs of the web editors for an in-built content management system. Kelly explains: "If editorial staff want to change a colour used on the web site or change the font size on the menu bar on the home page, all that is required is to make the change on the XSLT style sheet and the changes will be made in all related pages. They do not have to go into thousands of web pages which share these attributes."

Karl Noakes, Microsoft Consulting Services project manager, said: "We were delighted to work with Solidsoft. The Windows 2000 architecture provides a robust, scalable architecture that helps partners to develop a web site system as rapidly as possible."

The architecture is ideal for a proactive, agile organisation. Kelly said: "Since we finished the first release we have added a bulletin board on to the site where parents can discuss any concerns about pregnancy or child-rearing.



Brown was very impressed by the capabilities offered by XML and XSLT. "We aimed for a solution which would enable style changes to be made to the web pages quickly and easily and XSLT fitted the bill. XSLT was quick to learn and we were confident that it would work well for us because it is based on an open standard that has been agreed by the World Wide Web Consortium. It's the transformation language that people will be learning over the next few years and because it is an open standard we are confident that it will be widely adopted."



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