



A Lockheed Martin company

effective solutions
through independent thought

STASYS WEB SERVICES

www.stasys.co.uk

1 WHAT DID THE WORLD WIDE WEB EVER DO FOR US?

- 1.1 Well... it provides a 24/7 means of disseminating knowledge and information around the world.
- 1.2 We can make that information available almost instantaneously... it takes just a few seconds or minutes to update a website.
- 1.3 The recipients - our customers and clients - need no specialised skill or equipment other than the ability to use a computer and web browser.

2 STASYS AND THE WEB

- 2.1 Most businesses, organisations and government departments require a presence on the Internet, which has become a part of everyday life in Britain and many parts of the world.
- 2.2 STASYS is a one-stop-shop for all web needs from requirements to delivery and beyond. The company has both the systems consultancy skills and new media publishing capability to offer a comprehensive range of Internet, Extranet and Intranet packages.
- 2.3 The company's skills include providing websites for:
 - **1. Workgroup collaboration** - allow the collaboration of workgroups whose members may be based in different geographical locations. Workgroup members can interact over the Internet in the creation and storage of documentation and the progressing of projects, and can share calendars. Individuals can subscribe to receive e-mail alerts when documentation is added or updated.
 - **2. Discussion forum** - threaded discussion forums where members can self-register, and post items and replies with document attachments if required. Members can subscribe to receive e-mail alerts when new items or replies are posted.
 - **3. Web applications** - bespoke software applications that can be accessed and used over the Internet. The company has a software development section skilled in developing web applications.
 - **4. Advanced Content Management** - giving the site owners the ability to manage all their content themselves (including documents) over the internet using any web browser. They can edit content in one place for use on many websites. Change the look of their website without having to re-create their content every time.
 - **5. Product support** - provide support to a product or service and often include product information, documentation/software library and downloads, problem reporting and resolution.

- **6. Organisations and meetings** - record meeting dates, agendas, decision sheets, documentation, documentation archives, next meetings.
- **7. Dissemination of information** - enable instantaneous dissemination of information to interested parties via the Internet, often replacing snail mail and e-mail systems or distribution of CD-Rom disks
- **8. Extranets and password protection** - designed to be viewed by a selected audience and restricted by username and password protection.
- **9. Database generated information** - allow users to submit enquiries from a web page to a database and return information in web page format.
- **10. E-commerce** – allow credit and debit card transactions on-line.
- **11. CD/DVD based** – information disseminated in web format on CD and DVD, for example training material.
- **11. Computer/Web based Training** – training material on line or on disk using the latest multimedia technologies such as Flash and XML.

2.4 STASYS web services cover the whole spectrum of web publishing and include:

- Requirements Capture – we can help you produce a clear and specific requirements document for your web needs.
- Registration of URLs - website addresses.
- Advice and design of website in liaison with the client, publication to a test server to assist both STASYS and the customer in the development of the site.
- Creation of graphics and the use of an in-house graphics team to provide themed graphics for a site.
- HTML or xHTML coding compliance with World Wide Web Consortium (W3C) recommendations and standards.
- Cascading Style Sheet compliance to W3C recommendations.
- Compliance with W3C Accessibility Guidelines so that sites meet legal requirements for making web content accessible for people with disabilities.
- Testing of website using an Independent Testing Service within STASYS.

- Hosting of website on STASYS' own Internet servers or with Internet Service Providers.
- Publishing of site to Internet servers at Go Live date.
- Optimisation of site for a good ranking and presence on Internet search engines, and regular submission of site details to search engines.
- Maintenance of website to keep information timely and pertinent.
- Creation, publication and maintenance of RSS news reader feeds.
- Development of website to include major new features or substantial revamp of existing features.
- Analysis of website access logs and production of user-friendly hit reports with graphs and tables.
- Alerting system to check round-the-clock availability of a website and produce e-mail alerts should any outages be encountered.
- Provision of mirror site back-up to ensure constant availability of the site on the Internet.
- STASYS aims to provide a same-day service for routine website maintenance and updates.

3 CONVERGENCE

- 3.1 Many software projects will end up having a web enabled front-end. This is a growing trend, with the benefit that end users just need a computer and browser to use the tool or suite of tools that have been developed.
- 3.2 STASYS' software expertise supports and develops this concept, which has been aided by the advent of the Extensible Markup Language (XML), a standard format for electronic data interchange.
- 3.3 A prime example is the migration of the iSMART tools developed by STASYS into a tool set with a browser-based common front end. iSMART is a toolset of tried and tested procedures and processes with which Interoperability can be understood and its effectiveness improved – see STASYS iSMART brochure.

4 STASYS WEB SERVICES CUSTOMER BASE

- 4.1 STASYS web services customers include:
- EUROCONTROL (the European Organisation for the Safety of Air Navigation)

- NATO
- UK National Health Service
- US Air Force
- HM Fire Service Inspectorate (UK)
- European Commission
- International Data Links Society
- Unmanned Aerial Vehicles Systems Association
- UK Chapter of the AOC (the Electronic Warfare and Information Operations Association)
- Department of Trade and Industry (UK)
- UK MoD Integration Authority
- UKAEA - The United Kingdom Atomic Energy Authority
- Norwegian Ministry of Defence
- Northrop Grumman
- EDS Defence Ltd

5 STASYS WEBSITE EXPERIENCE

5.1 Case study - National Forum of Mental Health & Learning Disability Nurse Directors and Leads

- 5.1.1 STASYS was selected to design, publish and maintain an interactive website and internet collaboration facility for the National Forum of Mental Health & Learning Disability Nurse Directors and Leads.
- 5.1.2 The mission of this comprehensive forum is to develop a first class communication network for senior executives working in the Mental Health and Learning Disability sectors.
- 5.1.3 By facilitating mutual support and interaction, the forum enables members to work more efficiently, thus improving nursing care and practice in mental health and learning disability care organisations across the country. Members are able to upload documentation to the site for review and discussion.
- 5.1.4 This site, which provides logon-controlled access to the forum, highlights the features, benefits and facilities open to forum members.

5.1.5 The site enables the NHS to provide a national focus for the clear leadership of Mental Health and Learning Disability Nursing in NHS organisations, and to share and spread best practice in Mental Health and Learning Disability Nursing practice, development and education.

5.1.6 The address of the site is: <http://www.mentalhealthforum.org.uk/>.

5.2 Case study - Tactical Data Link Interoperability Testing Syndicate

5.2.1 In 1996 NATO established a team to define a common standard for Tactical Data Link (TDL) equipment testing. (Tactical Data Links are electronic communications in the defence arena.)

5.2.2 A syndicate was formed to address all future NATO TDL Interoperability Testing, with representatives from a number of NATO groups and nations - Czech Republic, France, Germany, Hungary, Italy, Norway, Poland, Turkey, UK and US.

5.2.3 The Syndicate was set a series of tasks, which included:

- Develop and maintain documentation in support of TDL Interoperability Testing
- Plan, conduct and report Interoperability Tests
- Develop a directory of test tools

5.2.4 The NATO Tactical Data Link Testing Syndicate (TDLITS) elected to use electronic media as its primary method of information distribution, and its website as the chosen medium.

5.2.5 STASYS was responsible for creating and developing the TDLITS website, and the Syndicate secretary reports that the site is praised by all its users and results in the speedy and accurate dissemination of the data to NATO. He says: "Without this excellent service, my job would be made very much more difficult and the customer (the Theatre Systems Group - TSG) and NATO would both suffer the consequences. One example of the success of the TDLITS website is that NATO Airborne Early Warning Force Command is using it as a model for its own site."

5.2.6 The site, much of which is restricted by username and password logon access, is used to:

- Describe the work and aims of the Syndicate.
- Report new and updated features within the website.
- Keep a directory of testing tools.
- Plan meetings and events, publish meeting details, agendas and decision sheets.

- Plan, conduct and report NATO Tactical Data Link Interoperability Tests.
- Maintain a document library, with document viewing/downloads.
- Publish miscellaneous additional information and seek feedback.

5.2.7 The address of the site is: <http://www.tacticaldatalink.com>

5.3 **Case study - European Reduced Vertical Separation Minimum (RVSM) Programme**

5.3.1 Over the last few years, European air traffic movements have increased by between 4% and 6% per annum with current forecasts indicating that European air traffic movements will more than double by 2015 compared with 1998 figures.

5.3.2 It is accepted that major changes to the Air Traffic Management system are necessary in order to cope with this continued traffic growth. Of the various measures identified, the implementation of RVSM is considered to be the most cost effective means in the short term of meeting this need.

5.3.3 By implementing an additional six flight levels between FL290 and FL410 inclusive, the RVSM programme provided continuous 1000ft vertical separation in the upper airspace for all the states involved in the programme.

5.3.4 STASYS won the contract from EUROCONTROL, the European Organisation for the Safety of Air Navigation, to create the official website to support the RVSM programme, and RVSM in Europe was successfully implemented simultaneously in the airspace of 41 European and North African countries on 24 January 2002.

5.3.5 The STASYS website enabled the RVSM team to:

- Describe the issues involved in and the background to the RVSM programme including the area of implementation and programme schedule.
- Explain the safety and feasibility studies that were crucial to the success of the project.
- Describe the air traffic control and flight planning requirements of the programme.
- Outline the multiple benefits of substantial reductions in fuel costs and in-flight delays for aircraft operators offered by the RVSM programme.
- Maintain an on-line height monitoring database of aircraft compliance status for RVSM approval.

- Publish a documentation library and list of websites providing additional information and guidance.
- Maintain a contacts list directory and contact details list of national programme managers.
- Publish frequently asked questions to assist aircraft operators, air traffic controllers, pilots and flight planners, and forms to return feedback and questions to the RVSM team.
- Plan and conduct RVSM workshops and publish workshop documentation and presentations.
- Publish a forum for the discussion of RVSM issues during the build-up to the Go Live date of 24 January 2002.

5.3.6 This site was incorporated into the ECACNAV Navigation Domain website at <http://www.ecacnav.com>.

5.4 **Case study - MANDRIL - Message Analysis and Data Reduction for the Integration of Links**

5.4.1 STASYS has developed an integrated suite of software to analyse message data flows within Tactical Data Links (the electronic communications systems used in the defence arena). The suite is used as a key component in interoperability and network analysis, system testing, and performance assessment.

5.4.2 MANDRIL has a large and growing user base and support is provided primarily via a STASYS-designed website.

5.4.3 The password-protected website allows registered users to:

- Log problem reports, and to view all reported problems and their status.
- Take part in a discussion group.
- Download software and database updates and documentation.
- Download MANDRIL Tutorials and Help files.
- Publish contact information and provide a form for potential users to request additional product information.

5.4.4 The address of the site is: <http://mandril.stasys.co.uk>.

5.5 Case study - Firelink Extranet for HM Fire Service Inspectorate

5.5.1 Her Majesty's Fire Service Inspectorate (UK) had a project which aimed to provide central guidance, including technical, commercial, project management and quality audit advice, to the 49 fire brigades of England and Wales in the procurement of a new wide area communications system.

5.5.2 At an early stage of the project STASYS constructed a website that acted as a virtual office to meet the needs of the project team, which was widely dispersed throughout England and Wales. The virtual office was based on Lotus QuickPlace, and was developed, hosted and maintained by STASYS. The site had controlled access by invitation.

5.5.3 It was set up to mirror PRINCE 2 project management requirements. Members of the project team were able to access the project diary, contact lists, an extensive library and the documents on which team members were working in order that they could be amended, audited and issued to the brigades.

5.5.4 The site offered other facilities such as hyperlinks to other websites and automatic e-mailing to individuals or groups. Completed documents were passed to a public website, which was developed and hosted by STASYS, for use by the fire brigades of England and Wales. The virtual office had some 20 users, but was also available for read-only access if required by senior civil servants and ministers.

5.5.5 STASYS also constructed, hosted and maintained a project virtual office to meet the needs of a project team, headed by a STASYS consultant, that was managing the wide area radio replacement on behalf of five fire authorities in the East Midlands. The site was broadly similar to that constructed for the Fire Service Inspectorate, but was designed to meet the requirements of the members of the project working group.

5.6 Case study - Tactical Data Link Training Courses

5.6.1 STASYS has been running its world-renowned Tactical Data Link training courses since early 1992. (Tactical Data Links are the electronic communications systems used in the defence arena.) STASYS now offers courses on:

- Introduction to Data Links
- Link 11 and 11B
- MIDS/JTIDS Link 16
- MIDS/JTIDS Link 16 Network Design and Management
- Link 22
- Battlespace Tactical Information Exchange

- TULIP/iSMART
- TDL Acquisition and Project Management
- Satellite Tactical Data Link
- Variable Message Format
- Electronic Warfare

5.6.2 These courses are particularly useful for those involved in the procurement, design, implementation or testing of data links and their integration into various platforms. They are also suitable for operational personnel and provide a thorough introduction to this wide-ranging and complicated subject.

5.6.3 Courses are easily arranged at STASYS or clients' premises and course information is published on the STASYS website.

5.6.4 Each attendee is supplied with comprehensive course material produced and maintained by STASYS web services in web format on CD-Rom. Thus attendees are able to review the course information and access further detailed material from the CD disk. The only requirement is a computer and browser.

5.7 **Case study – Eurofighter Typhoon Forum**

5.7.1 The project for the Eurofighter Typhoon, the world's most capable and dynamic swing-role combat aircraft, required a means by which discussion could take place on issues relating to equipment being supplied. It was decided that the most effective implementation of this was via a web-based forum. STASYS configured the forum, the role of which was to provide an area where members could place questions, or provide answers to these questions.

5.7.2 The information held in the site was accessible only by users who were specifically granted access by the site administration.

5.7.3 Security was implemented at the server, and required users to input a username and password before they could view the site. Users had to enter a username and password to enable them to post a question or to reply to one.

5.7.4 Users were assigned differing levels of freedom in the forum by administration. Some could only view what others had written. Some could post and reply. Certain users were given the right to post file attachments to the forum.

5.7.5 Direct self-registration was removed from the site. Users applied for a username and password from the administrator via email or on a form on the forum. If the administrator approved the request, he emailed the user the details and set the level of access the user had in the forum.

5.8 Case study – STASYS company website

- 5.8.1 The STASYS company website is published at <http://www.stasys.co.uk> to showcase our skills and products to the world, every minute of the day, every day of the year.
- 5.8.2 The World Wide Web Consortium (W3C) is the international organisation that develops specifications and guidelines for the Internet. The STASYS website complies and validates with World Wide Web Consortium Quality Assurance Markup standards for the xHTML mark-up language. xHTML is the successor to HTML, which will become obsolete. xHTML is a web mark-up language which is compatible with XML processes.
- 5.8.3 The layout and design of the site is implemented with Cascading Style Sheets (CSS). CSS technology is a method of separating the layout and design of the pages from the content. The web pages just contain the content and are leaner, faster-loading pages. The layout and design mark-up is called in from separate CSS files. Use of CSS layout is also a foundation for making a site Accessibility compliant. The Cascading Style Sheets validate with W3C standards.
- 5.8.4 The site is compliant with W3C Accessibility Guidelines, levels 1 and 2. This is a legal requirement and means the site is designed to be accessed by people with a range of issues such as colour blindness, poor eyesight, blindness and mobility restrictions.
- 5.8.5 The site is printer friendly, without the need for printer-friendly buttons. When a page is sent to the printer, a Cascading Style Sheet hides unwanted side columns and ensures that the essential content is printed without any cut-off at the edges.
- 5.8.6 All e-mail addresses are encrypted to thwart the efforts of spammers to harvest addresses from our site.
- 5.8.7 In view of our activities in the Defence business sector, the site does not use Flash animation or Java. These are sometimes disallowed at defence establishments as they are considered a potential threat to system security.

6 STASYS WEB SECURITY MEASURES

- 6.1 STASYS implements measures to ensure the integrity of the Internet infrastructure.
- 6.2 The first line of defence is an International Computer Security Association (ICSA) approved firewall. This is configured to allow the minimum access required from the Internet to the infrastructure and denies all other connections. In doing so it removes vulnerability to common port-scanning, prevents denial of service attacks, and prevents any malicious connections from the Internet to the Internet servers. The firewall logs all unauthorised activity and these logs are reviewed by IT staff on a regular basis.

- 6.3 The Internet servers are configured using the software manufacturers' best practices to ensure that any known software vulnerabilities are addressed. In addition, the manufacturers' latest security patches are tested and applied as soon as they become available to protect against any new vulnerabilities. Anti-virus software is also used as standard on all servers.
- 6.4 At the website level, access control software is used to protect areas of websites which have a restricted membership. The software chosen has a wide user base and has been proven to be effective.
- 6.5 In order to keep up-to-date, STASYS IT Department are members of several security-related e-mail lists, including both the Microsoft security bulletin and the UK government's Unified Incident Reporting and Alerting Scheme. This ensures that any potential security threats can be addressed as soon as they become known.

7 WEBSITES DESIGNED, PUBLISHED AND MAINTAINED BY STASYS

7.1 Websites designed, published and maintained by STASYS include:

- [iSMART process for ensuring Communications Interoperability – versions for US, Germany and Spain](http://www.ismart.us/)
<http://www.ismart.us/>
<http://www.ismart-info.de/>
<http://www.ismart-info.com.es/>
- [Mental Health and Learning Disability Nurse Directors' and Leads' National Forum](http://www.mentalhealthforum.org.uk)
<http://www.mentalhealthforum.org.uk>
- [MANDRIL message analysis tool support](http://mandril.stasys.co.uk/)
<http://mandril.stasys.co.uk/>
- [Tactical Data Link Interoperability Testing Syndicate](http://www.tacticaldatalink.com/)
<http://www.tacticaldatalink.com/>
- [The MENTOR Consortium](http://www.eur-mentor.com/)
<http://www.eur-mentor.com/>
- [United Kingdom Defence Tactical Data Links Standards Documentation](http://www.uktdl.com/)
<http://www.uktdl.com/>
- [United Kingdom Chapter of the AOC – The Electronic Warfare and Information Operations Association](http://www.ukaoc.org/)
<http://www.ukaoc.org/>
- [Unmanned Aerial Vehicle Systems Association](http://www.uavs.org/)
<http://www.uavs.org/>
- [TIGER - Tactical data link InteGration ExerciseR](http://www.tiger-link16.com/)
<http://www.tiger-link16.com/>
- [PUMA – Portable Unit for MIDS Analysis](http://www.puma-mids.co.uk/)
<http://www.puma-mids.co.uk/>
- [CRAM - Conditional Route Availability Message](http://cram.ecacnav.com/)
<http://cram.ecacnav.com/>

- [More Autonomous Aircraft in the Future Air Traffic Management System](http://www.ma-afas.com/)
http://www.ma-afas.com/
- [STASYS Company Website](http://www.stasys.co.uk/)
http://www.stasys.co.uk/
- [STASYS US Company Website](http://www.stasys.us/)
http://www.stasys.us/
- [STASYS German Company Website](http://www.stasys.de/)
http://www.stasys.de/

8 CAN STASYS WEB SERVICES HELP YOU?

8.1 Can STASYS web services help your organisation to distribute its knowledge and information to a world wide audience? We think so!

8.2 Please contact:

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