



www.trafficengland.com



Traffic England

objectives

- ensure the site is designed for a varied audience from business commuters to tourist users
- improve usability through strong layout and design
- integrate with various real time traffic information feeds from the NTCC
- enhance the presentation of the traffic information on the maps
- better use of new types of traffic information such as average speed and road side camera shots
- specify a robust hosting infrastructure capable of withstanding massive 'crisis day' website visitor levels
- design and build associated applications required for the website
- install, support and enhance the infrastructure across a 3 year contract period

results

- successful user centred design of Traffic England an important brand and service for HA
- correct and continuous presentation of real time traffic information from traffic feeds
- positive feedback from Usability Testing groups, transport enthusiast forums and end users
- delivery of full support, maintenance and enhancements package since launch

highways agency - traffic england

Traffic England is a free website provided by the Highways Agency through the National Traffic Control Centre, providing live traffic information about the motorways and A-Roads in England (gathered for their operations centre via various road sensors and cameras).

This forms part of the Highways Agency objective to use the National Traffic Control Centre to provide traffic information via a variety of direct and indirect channels. Serco have a long term contract to operate the National Traffic Control Centre, including the website, and chose Appius from a set of tendering companies as the best provider for the redesign and re-build of the website.



Appius demonstrated extensive user centred design, bespoke development and applications skills to win the project



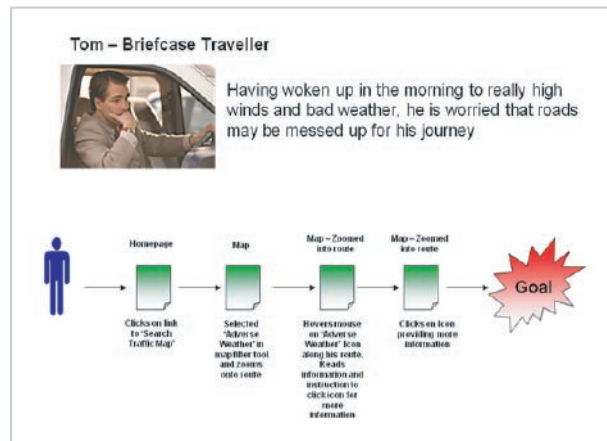
Just to be selected for this project Appius needed to demonstrate extensive skills and track record in the areas of project management methodology, user centred design, technical architecture, bespoke development and integration, application design, overlap with 3rd party software provider (for mapping) – all combined with a team highly experienced in designing great transport service websites.

Our User Experience team took the client and the project through our full User Centred Design process starting with ideas from a full Competitor Review and the creation of User Profiles to ensure the needs of each type of user were taken into account.



user profiles

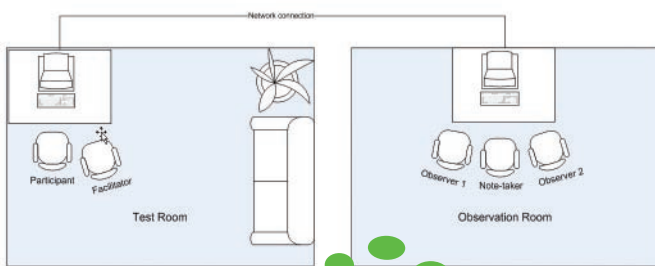
user journeys



needs and goals of each type of user were taken into account

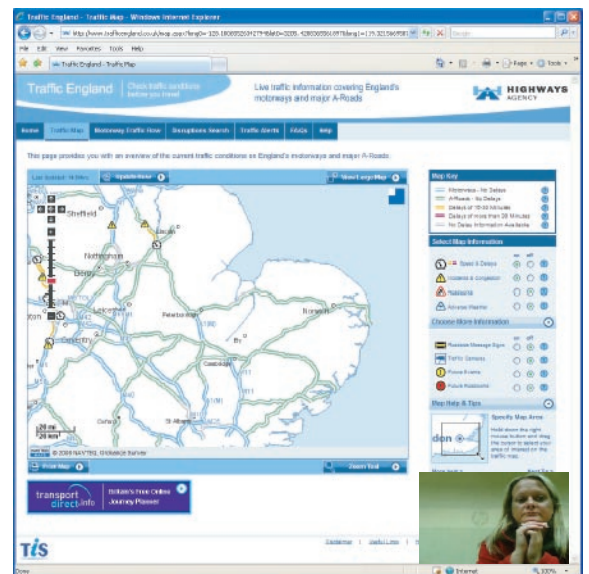
A set of Usability Testing sessions were conducted to understand the strengths and weaknesses of the current website. The intended user experience was 'wireframed', designed in line with Highways Agency guidelines and finally prototyped for a second round of Usability Testing to test various innovative ideas and generate a set of changes informed by testing from the end audience groups.

usability testing environment



a chance to test various innovative ideas and generate informed changes

prototype



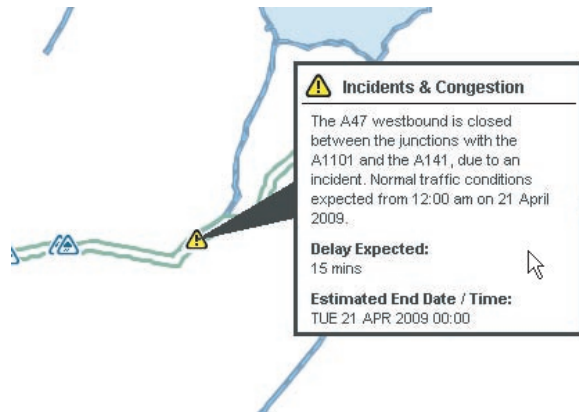
The final version of the website was also validated and iterated through end user sessions. This step ensured that we and our client could be completely comfortable that the launch version would be as usable and intuitive as possible.

In parallel our Technology Team defined the Conceptual Architecture for the solution and specified key interfaces with the National Traffic Control Centre data feed and various other Highways Agency information feeds. The solution has four key components, a Traffic Map, a Motorway Traffic Flow, a Disruptions Search and most importantly the CORBA systems integration. The data travels from the operation centre CORBA feed and is converted by a Java CORBA ORB to provide event data for the Java map and SQL database. This event data is then overlaid on the HA road network which has been drawn on the map using shape files provided by the NTCC and also in the Motorway Traffic Flow which is a linear representation of the motorways.



a linear representation of the motorway traffic flow converts data into a user friendly interface

This linear representation of the road network has been created through a complex set of stored procedures, that “walk” the Project Network Model (a text file of all the road links the HA manage) and by identifying different junction conditions is able to convert this data into SQL tables for use in the website and particularly the Motorway Traffic Flow and Disruption Search. This process ensured optimum distribution of work packages to reduce risk and maximise performance of the new .NET website application. Physical architecture, server sizing and hardware requirements were also provided by our team.



Disruptions on the M4

Road	Location	Direction	Description	Delay	Start Date/Time	End Date/Time	Map
M4	J6 J7	Westbound	Future Roadworks On the M4 westbound between junctions J6 and J7, expect delays of up to 15 mins at peak times due to roadworks - from 5 am on 26 November 2007 to 6 am on 26 February 2010.	15 mins	26/11/2007 06:00	26/02/2010 06:00	Map
M4	J7 J6	Eastbound	Future Roadworks On the M4 eastbound between junctions J7 and J6, expect delays of up to 15 mins at peak times due to roadworks - from 5 am on 26 November 2007 to 6 am on 26 February 2010.	15 mins	26/11/2007 06:00	26/02/2010 06:00	Map
M4	J14 J15	Westbound	Current Roadworks On the M4 westbound between junctions J14 and J15, there are currently delays of 10 mins due to roadworks - Expect disruption until 11:00 am on 30 April 2009.	10 mins	N/A	30/04/2009 23:00	Map

a robust solution was produced with accurate road network information

Throughout the project Appius took contractual and project management responsibility for the provision of the mapping software solution by Navteq Maps, allowing the client to work with a single point of contact and provider throughout rather than having to manage multiple vendors. The website build and launch process involved extensive Testing and Release Management to ensure a robust solution with accurate road network information and excellent performance under intensive load. Appius co-ordinated the testing prior to release to client, and also format Customer Acceptance Testing by Serco.