



## BBC Travel News

Bringing information together,  
and making it work

Peter Schofield  
BBC English Regions (New Media)

[peter.schofield@bbc.co.uk](mailto:peter.schofield@bbc.co.uk)



## The BBC and traffic & travel information

- Traffic and travel content is a feature of most domestic BBC radio services, both nationally and locally
- TV/in-vision content is limited to coverage within existing domestic news programming, particularly during morning peak hours
- Text content has been available via CEEFAX, the BBC's domestic teletext service for many years
- More recently, the BBC has expanded traffic and travel content provision online, and via interactive



## The BBC and traffic & travel information

- Information gathering is performed for the BBC by a third-party provider, Trafficlink
- Trafficlink content used, under licence, for voiced broadcast purposes and text/data services
- BBC retains editorial control, and production responsibility for traffic and travel information output
- BBC working with other traffic and travel information providers to supplement qualitative coverage provided by Trafficlink, to increase depth and relevance



## Current BBC services

### Interactive

### CEEFAX

CEEFAX 2 430 Sun 30 Apr

<b>BBC</b>	<b>TRAVEL</b>		
LATEST NATIONAL ROAD TRAVEL UPDATES 431			
FERRY	435	FLIGHT ARRIVALS	440
ROADS	431	HEALTH TIPS BBC2	460
Regional	437	FCD TRAVEL BBC2	470
RAIL	432		
Regional	434		
South East	433		
Weekend	439		
London Tube	436		

Roads 431 Rail 432 Flights 440



## Current BBC services

### Interactive

## BBCi Travel News

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Index		
News		
Sport	Travel Index	430
Weather	Rail	432
<b>Travel</b>	Roads	431
Business	Ferries	435
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Live + Learn		
Your Stories		
Children's		
Local TV		
About BBCi		



## Current BBC services

### Interactive

## BBCi Travel News

The screenshot shows the BBCi Travel News interface. On the left, a weather map of the UK is displayed with a presenter and a 'WEDNESDAY' label. The main content area is titled 'National Roads' and contains two news items: 'Torbay Victoria Parade closed both ways in the A379 Torwood Street junction in Torquay, because of an accident.' and 'A82 Argyll And Bute Road re-opened northbound at the A83 junction in Tarbet.' Navigation controls include 'Page 2 of 11' and 'Next Item'. The bottom bar features the 'BBC HOME' logo and 'BACK' and 'INDEX' buttons.

Travel 15:43 29 Apr

Weather

National Roads

Torbay Victoria Parade closed both ways in the A379 Torwood Street junction in Torquay, because of an accident.

A82 Argyll And Bute Road re-opened northbound at the A83 junction in Tarbet.

Page 2 of 11 Next Item

BBC HOME BACK INDEX



## Current BBC services

### Interactive

## BBCi Travel News

The screenshot shows a mobile interface for BBCi Travel News. At the top left, the word "Travel" is displayed. To its right, the time "15:44" and date "29 Apr" are shown next to a battery level indicator. Below "Travel" is a weather forecast thumbnail featuring a woman pointing at a map of Europe, with the word "Weather" at the bottom and a red "EARLIER" button. To the right of the weather thumbnail is a "National Rail" section with the following text: "Northern Rail 0871 200 49 50 Disruption between Huddersfield and Dewsbury due to electrical supply problems. Trains not stopping at Allerton due to engineering works." Below this text are navigation options: "Page 1 of 2" and "Next Item <>". At the bottom of the screen, there are three buttons: "BBC HOME", "BACK", and "INDEX".



## Current BBC services

## New Media

bbc.co.uk/travelnews

bbc.co.uk

Home TV Radio Talk Where's 3 Live A-Z Index Search

SATURDAY 29th April 2006  
Accessibility Help  
Text only

### Travel News

Updated around the clock, around the country...

Last updated: Saturday 29 April 2006 18:53:11

**Top incident**

**A138 London Romford Road closed both ways at the B164 Water Lane junction in Stroudford, because of an accident.**

**REPORT AN INCIDENT**  
08700 100 500

#### ROADS

The latest traffic and travel situation across your area

<b>England</b> Bedfordshire Berkshire Bristol Buckinghamshire Cheshire Cheshire Cornwall Coventry Cumbria Derbyshire Devon Dorset County Durham Essex Gloucestershire Hampshire Hereford and Worcester Hertfordshire Humberside Kent Lancashire Leicestershire Lincolnshire London Merseyside Greater Manchester Norfolk Northamptonshire Northumberland North Yorkshire Nottinghamshire Oxfordshire Shropshire Somerset South Yorkshire Staffordshire Suffolk Surrey Sussex Teesside Tyne and Wear Warwickshire West Midlands West Yorkshire Wiltshire	<b>Scotland</b> Highlands & Islands North East Scotland Tayside & Central Glasgow & West of Scotland Edinburgh & East of Scotland South Scotland
<b>Wales</b> North East North West Mid South East South West	<b>London</b> M25 Central London North London South London East London West London

**UK Motorways**  
Motorway (all routes)

**Northern Ireland**  
Northern Ireland

#### CHECK BEFORE YOU TRAVEL

with our national incident map

#### BBC NEWS

Transport and travel stories

**Present staff in closure protects workers from the Praga's plant**  
warned for closure is foreseeable stop protests.

- Later weekend trains for the Tube
- UK fuel prices reach new record
- How from BBC News

#### TRAFFIC WEBCAMS

Your view on live conditions

**Don't get in a jam**  
Pictures of key travel hotspots around selected areas of the UK, updated every 15 minutes.

<b>England</b> Berkshire Bristol Buckinghamshire Leicester London Merseyside Nottingham South Yorkshire	<b>Scotland</b> Tayside Scotland	<b>Wales</b> North West Wales North East Wales South West Wales South East Wales	<b>Northern Ireland</b> Belfast
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#### RELATED LINKS

Other sources of travel information

**More see-BBC webcams**  
Selected see-BBC webcams for traffic, transport and travel planning information.

**Check your vote**  
Have you ever received additional funding for voting work as part of your job?

Yes 26%

**THE HARD SHOULDER**  
Raise your transport?

**BBC Travel News webpage**  
Your guide to selected see-BBC webcams for traffic, travel and transport planning information.

**More see-BBC webcams**  
Selected see-BBC webcams for traffic, transport and travel planning information.

**Public Transport**  
Transport Direct

**Roads**  
Traffic England

**UK Motorways**  
Motorway (all routes)

**UK Ferries**  
Ferry (all UK routes)  
Britannia Ferries  
Caledonian MacBrayne  
Hovgaard  
Irish Ferries  
Jolly Of Man Steam Packet  
Norfolk Line  
P&O Ferries  
Red Funnel  
Sea-Cat  
SeaFrance  
Stena Line  
Straitliner/Caribbean  
Tasman Ferries

**UK Air**  
Air (all UK routes)

**International rail services**  
Eurostar  
Swissair

**TFL - Transport for London**  
Oxyden Travel  
Tube (all lines)

**BBC Travel News webpage**  
Your guide to selected see-BBC webcams for traffic, travel and transport planning information.





## Current BBC services

## New Media

bbc.co.uk/travelnews

The screenshot shows the BBC Travel News website interface. At the top, there's a navigation bar with 'Home', 'TV', 'Radio', 'Talk', 'Where's Live', and 'A-Z Index'. A search bar is also present. The main header features the 'Travel News' logo and the tagline 'Updated around the clock, around the country...'. Below this, there's a 'UK ROADS' section with a map of the United Kingdom. A yellow box on the map highlights an incident on the M6 near Stratford, with a text box stating: 'M6, Cheshire - Narrow lanes both ways at A12. Reason, speed restriction of 45 mph.' To the right of the map, there's a 'REPORT AN INCIDENT' button and a 'MORE FROM THIS SECTION' section with a 'Choose an area' dropdown. Below the map, there's a table of 'Latest Road Incidents' with columns for 'Location' and 'Incident Report'. The table lists three incidents: one on the A6164N at Carrington Spur, one on the A118 at Stratford, and one on the M6 at West Midlands.

Location	Incident Report
A6164N [Carrington Spur] Carrington both ways between M60, 10, Carrington and A6144, Carrington Lane, Carrington	closed A6164(N) Greater Manchester - Closed both ways between Carrington and A6144 Carrington Lane in Carrington, because of roadworks. Last updated: 28th April 2006 at 07:23, started: 20th April 2006, ending: 2nd May 2006
A118 [Wormford Road] Stratford both ways at 0164, Water Lane, Stratford	closed A118 London - Wormford Road closed both ways at the B164 Water Lane junction in Stratford, because of an accident. Last updated: 28th April 2006 at 18:24
M6 West Midlands northbound at A421, West Midlands [M6 junction 9]	closed M6 West Midlands - Lane 18 opened on west slip road northbound at 09, Wednesbury. Last updated: 28th April 2006 at



## Current BBC services

## New Media

bbc.co.uk/travelnews

The screenshot shows the BBC Travel News website interface. At the top, there's a navigation bar with 'Home', 'TV', 'Radio', 'Talk', 'Where I Live', 'A-Z Index', and a search box. The main header features the 'Travel News' logo and a sub-header 'Updated around the clock, around the country...'. Below this, there are icons for different transport modes: car, bus, train, ferry, and airplane.

The main content area is divided into several sections:

- Travel News / Rail - Northern Rail**: A section titled 'NORTHERN RAIL' with the sub-header 'Current disruption and engineering work'. It includes a 'REPORT AN INCIDENT' button and a 'MORE FROM THIS SECTION' link.
- Incident Report Table**: A table with three rows of incident reports. The first row is selected.
- Public Transport Incidents**: A section showing 'Latest Public Transport Incidents / Total 3' and 'Cleaned 0'.
- Choose an area**: A dropdown menu for selecting a location.
- BBC NEWS**: A section with a 'More where you live' link and a list of news items.
- RELATED LINKS**: A section with a 'Subscribe to this web' link and a list of related links.
- Needs**: A section with a list of needs.
- Public Transport**: A section with a list of public transport services.

At the bottom of the page, there is a disclaimer: 'Information supplied by BBC Travel News. While the BBC has made every effort to ensure that all BBC Travel News information is up-to-date and accurate, it is provided on an 'as is' basis only and without any warranty or representation (whether express or implied) as to its accuracy or reliability. The BBC is not responsible for and accepts no liability whatsoever for any direct, indirect or consequential loss or damages arising from or connected to the use of this information.'



## Where we are

- Through use of single information gatherer, we have a service which is broadly equivalent across platforms – what you hear, is what you see
- Multimodal coverage – beyond roads
- Depth – over 2,000 incidents on file, including coverage of smaller incidents/roadworks and rural areas
- Multi-platform service – have presence of practically every available broadcast platform in UK



## Where we're going

- More depth of coverage, from more sources (e.g. CCTV images, flow data, increased public transport coverage, etc.)
- Ubiquitous access (exploiting new formats, devices and methods)
- On demand (beyond text, and into audio and video)
- Customisation and interactivity



## What do we mean by 'combining information'?

- Multimodal – planes, trains, automobiles, funicular railways, ferries, cable cars, the lot...
- Qualitative and quantitative – providing context and depth
- Aggregation and relevance – right information, right time, in the right place



## Combining information in practice

## Washington State Department of Transport

www.wsdot.wa.gov

The screenshot displays the Washington State Department of Transport website's traffic page for the Seattle area. The page is titled "SEATTLE AREA TRAFFIC" and shows a map of the region with various traffic conditions indicated by colored lines and icons. A sidebar on the left contains navigation links for Seattle traffic, cameras, and travel information. A main content area features a "Pugnet Sound Construction" alert for I-5 at Marine View Dr. (South) and a live camera feed showing the road from a southward perspective. Below the camera feed, there are news snippets and a "More Seattle Information" section with links to detailed flow maps and other resources.

**SEATTLE AREA TRAFFIC**  
Traffic Conditions as of: Apr 29, 2006 10:19 AM PDT

**Pugnet Sound Construction**  
I-5 at Marine View Dr. (South) @ WSDOT  
I-5 at Marine View Drive LOOKING SOUTH  
Thu, 27 Apr 2006 18:54:44 PDT

**SEATTLE TRAFFIC**  
Seattle Area Home  
Local Travel Alerts and Sloudonts  
Incidents  
Travel Times  
Pugnet Sound Camera List + City/Country Links  
North Detail Map  
Ridgeway Detail Map  
Bus/Trains/Carpool/Vanpool/Etc.

**TRAFFIC & CAMERAS**  
State View  
Seattle Area  
Ferry Cameras  
Tacoma  
Gig Harbor  
Olympia  
Vancouver Area  
Mount Vernon  
Bellingham  
Canadian Border  
Spokane  
Wenatchee

**STATE TRAVEL INFO**  
Travel Alerts & Sloudonts  
Mountain Passes  
Weather  
Construction  
Cross-state Travel Routes  
Winter Driving Tips  
Safety Rest Areas  
State Highway Map  
Intrastate Exits  
Featured Services

**ADDITIONAL INFO**  
Deregister State Travel Driver & Vehicle Licensing  
Washington State Tourism  
Contact Us  
Disclaimer

**WSDOT News**  
WSDOT Presents Construction Timetable for Truck Crossing at Blaine  
Crews Push to Complete I-5 Construction Through Shoreline Next Week  
WSDOT Tells Drivers to Prepare for Another Busy Construction Week - May 1 - May 5  
More News...

**More Seattle Information**  
Detailed flow maps without cameras  
North detail (north of SR 520)  
Ridgeway detail (Lake Washington bridges)  
South detail (south of I-90)  
West Up map (Pugnet Sound at top)  
North Up map (North at top)  
Map Archives (view previous years' maps)  
Winter/Alternative Traffic Info  
Ferry Wait Times  
Lake Washington Bridges  
Have Questions?  
More Local Information



## Combining information in practice

Traffic.com

www.traffic.com

The screenshot shows the traffic.com website interface. At the top, it says "It's time." and "with 300 minutes and 100 texts just £30 a month with Canary". The main navigation bar includes "home", "metropolitan areas", "offerings", "my traffic.com", and "help". The current page is "new york area traffic".

On the left, there is a map of the New York area with color-coded traffic levels. Below the map are "MAP OPTIONS" and "new york hotspots". The hotspots section lists several locations with "JAM FACTOR" reports, such as "George Washington Br Upper Level" with a jam factor of 9.2.

On the right side of the main content area, there are several sections: "register to save reports and set up alerts" with a "FREE" badge, "free hotspot reports" with a form for "My Email Address", "custom traffic reports", and "weather".

On the far right, there is a vertical sidebar with a red background. It features a Vodafone advertisement for "Free texts for life" with a mobile phone image and the text "Free texts 1200". Below that is an Intel advertisement for "Centrino Duo" with a logo and the text "BE ENTERTAINED AND UNCONSTRAINED... TOSHIBA NOTEBOOKS WITH INTEL® CENTRINO® DUO MOBILE TECHNOLOGY".



## Combining information in practice

## Real Time Traffic Information

www.realtime-traffic.info

**Realtime traffic info**  
Use traffic information updated in real-time

**Highways Agency** | Updated: 20 April 13:23

Select Area or Click on Map

- Birmingham
- Coast
- Leeds
- London
- Manchester

**Key - Average Speed**

- Greater than 50 mph
- Between 30 and 50 mph
- Less than 30 mph

Preferred resolution for this page is 1024 x 768

This service is being provided on a trial basis by the Highways Agency.

Map showing traffic information for the Midlands region, including cities like Birmingham, Manchester, Liverpool, and Stoke-on-Trent. A pop-up window for M56, 26 - 37 shows average speeds: West 34 mph, East 70 mph.

Select which area of the map you wish to obtain traffic information on, by holding your mouse pointer over one of the roads.

The colour of the roads provides an indication of the average speed at the location.

This provided by **HALOGEN** (0800 400 400)

For more traffic information provided by the Highways Agency click on the TrafficMap icon.

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Live traffic updates, 24 hours a day. 08700 880 115  
BT landline calls cost no more than 4p per min; calls from mobiles usually cost more  
Chartered Highways Agency information: 09457 60 40 30  
No more than 4p per min from BT landlines; more from mobiles  
Do not use a mobile phone whilst driving

Real-Time Traffic Information provided on behalf of the Highways Agency.





## Combining information in practice

### Video Information Highway

www.vih.org.uk

The screenshot shows the HANET website interface. At the top, it says "HANET Live CCTV images updated in real-time" and "HIGHWAYS AGENCY". Below the map, there is a table of camera information:

Camera ID	Description
6222B	M55 Lightfoot Green
6242B	M55 Broughton Island
6262B	M55 JMLM Route Split

Below the table is a "Refresh" button. A smaller window in the bottom right shows a live video feed from camera 8185A, displaying a highway scene with a sign that reads "0105 A M56 RD J6 TO J7".



# Combining information in practice

## TrafficMap

www.trafficmap.co.uk

The screenshot shows the TrafficMap website interface. At the top, it features the 'TrafficMap' logo and the tagline 'Live traffic information updated in real-time'. The 'HIGHWAYS AGENCY' logo is also present. A navigation bar includes 'Highways Agency', 'LATEST', and 'H4 07:00 Other', with an update timestamp of 'Updated: 20 April 2006 18:03'. Below this, there are links for 'Contact Us', 'Technical Terms', 'Accessibility', 'Site Map', and 'Help'. The main content area is divided into several sections: 'Select Area or Click on Map' with a 'UK Map' and regional links (Birmingham, Bristol, Kent, Leeds, London, Manchester); 'Text Based Information' with a search box for motorway numbers and directions; 'Current Conditions' with a list of incident types (Confirmed/Unconfirmed Incidents, Delays, Roadworks, Weather, Electronic Roadside Message Signs, Matrix Message Signs) and a 20-mile scale bar; and a 'Feedback' section. At the bottom, there is contact information for Matt MacDonald, a disclaimer about mobile phone use, and a copyright notice for the Highways Agency.



## Combining information in practice

## Transport Direct

www.transportdirect.info

The screenshot shows the Transport Direct website interface. At the top, there's a navigation bar with links like Home, Quick planners, Door-to-door, Maps, Mobile, and Live travel. Below that, a search bar shows a journey from WAT 1NB to B1 1RF. The main content area displays a table of outward journeys for Tuesday 08 May, leaving after 06:30. The first option is selected, showing a train and walk journey.

Option	Transport	Changes	Leave	Arrive	Duration	Select
1	Train, Walk	0	06:39	08:36	1hour, 57 mins	<input checked="" type="radio"/>
2	Train, Walk	0	07:20	09:05	1hour, 45 mins	<input type="radio"/>
3	Train, Walk	0	07:41	09:36	1hour, 55 mins	<input type="radio"/>
4	Train, Walk	0	08:20	10:04	1hour, 44 mins	<input type="radio"/>
5	Car	0	06:30	08:27	1hour, 57 mins / 105.5miles	<input type="radio"/>

Below the table, the details for the selected journey (Option 1) are shown. It starts at WAT 1NB, involves a 15-minute walk to Runzeln, a 23-minute train ride to Birmingham New Street, and a final 9-minute walk to B1 1RF.

NOTES:  
 • Travellers with disabilities can find out about the accessibility of the types of transport in the journey.  
 • "Change" means getting off one vehicle to board another.  
 • Also, please (re)check your journey details within 2 weeks of travelling as some services may change.



# Combining information in practice

## Traffic Scotland

www.trafficScotland.org

A screenshot of the Traffic Scotland website. The browser address bar shows 'http://www.trafficScotland.org/traffic.asp?Asid=800&amp;action=PopRight'. The page has a blue header with the 'Traffic Scotland' logo and the tagline 'Real-time and future traffic information for Scotland'. Below the header is a navigation menu with 'Home', 'Traffic Info', 'Live Day View', and 'Site Map'. The main content area is titled 'Traffic Info' and features a central map of Scotland with a pop-up window for 'Glasgow Airport 17 MOT 9 Charing 3.7'. To the left is a 'Layers' panel with checkboxes for 'Current Incidents', 'Roadworks', 'Queue', 'Planned Roadworks', 'Planned Events', 'Traffic Jams', 'Variable Message Signs', and 'Congestion'. To the right is a 'Welcome to Traffic Information Scotland' box with instructions on how to use the map and layers. At the bottom, there is a footer with logos for Transport Scotland, Scottish Council, Journey Time Planner, Traveline, and Met Office, along with a navigation menu.



## Combining information in practice

### Traffic Wales

[www.traffic-wales.org](http://www.traffic-wales.org)

The screenshot shows the Traffic Wales website interface. The main map displays a network of roads in Wales, with color-coded segments indicating traffic conditions (e.g., green for clear, yellow for slow, red for congested). A legend at the bottom provides a key for various symbols used on the map, such as traffic signals, cameras, message signs, incidents, roadworks, and planned events.

Key:	
	Traffic signal : not set
	Traffic signal : set
	Camera : image available
	Camera : image not available
	Fixed message sign : not set
	Fixed message sign : set
	Variable message sign : not set
	Variable message sign : set
	MS4 Variable message sign : not set
	MS4 Variable message sign : set
	Incident
	Roadworks
	Planned event



## Combining information in practice

## National Rail Enquiries

www.nationalrail.co.uk

**National Rail Enquiries** | Fill your mobile with something special | **Get 7 days for the price of 5**

Home | Train Times & Fares | Stations & Destinations | Service Bulletins | Passenger Services | Train Companies & Maps | Contact Us | Site Help

**TRAIN TIMES & FARES** | SITE SEARCH | search site | GO

**LIVE DEPARTURES & ARRIVALS:**  
**CREWE (CRE)**

As at: Saturday 29 April 2006 18:24:13  
Your page will not refresh automatically, please click here for a version that will refresh  
[Cross Station Information](#)  
[Service Bulletins affecting Crewe](#)

ARRIVES FROM & DEPARTS TO	TIMETABLE	EXPECTED	OPERATOR	TRAIN DETAILS
<a href="#">Milford Haven</a>	Arr	18:24	On time	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
Terminates here	Dep	—	—	
<a href="#">Liverpool Lime Street</a>	Arr	18:22	18:20	<a href="#">Central Trains</a>   <a href="#">Details</a>
<a href="#">Birmingham New Street</a>	Dep	18:24	On time	<a href="#">Central Trains</a>   <a href="#">Details</a>
<a href="#">Birmingham New Street</a>	Arr	18:23	On time	<a href="#">Central Trains</a>   <a href="#">Details</a>
<a href="#">Liverpool Lime Street</a>	Dep	18:24	On time	<a href="#">Central Trains</a>   <a href="#">Details</a>
<a href="#">Chester</a>	Arr	18:25	Cancelled	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
Terminates here	Dep	—	—	
<a href="#">Crewe</a>	Arr	—	—	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
<a href="#">Chester</a>	Dep	18:33	Cancelled	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
<a href="#">London Euston</a>	Arr	18:38	18:35	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Liverpool Lime Street</a>	Dep	18:41	On time	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Liverpool Lime Street</a>	Arr	18:44	18:41	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">London Euston</a>	Dep	18:47	On time	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Dunfermline</a>	Arr	18:48	18:45	<a href="#">Central Trains</a>   <a href="#">Details</a>
Terminates here	Dep	—	—	
<a href="#">Chester</a>	Arr	18:59	No report	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
Terminates here	Dep	—	—	
<a href="#">Shrewsbury</a>	Arr	18:57	18:51	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
Terminates here	Dep	—	—	
<a href="#">London Euston</a>	Arr	18:59	18:51	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Oxenholme Lake District</a>	Dep	18:59	On time	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Crewe</a>	Arr	—	—	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
<a href="#">Holyhead</a>	Dep	19:03	Starts here	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
<a href="#">Crewe</a>	Arr	—	—	<a href="#">Central Trains</a>   <a href="#">Details</a>
<a href="#">Dunfermline</a>	Dep	19:05	Starts here	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Cardiff</a>	Arr	19:11	19:07	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">London Euston</a>	Dep	19:14	On time	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Manchester Oxford Road</a>	Arr	19:57	19:09*	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
<a href="#">Cardiff</a>	Dep	19:18	On time*	<a href="#">Virgin Trains</a>   <a href="#">Details</a>

**Free texts for life**

Make the changeover with free gsm tickets

vodafone

**RELATED LINKS**

- [TrainTracker](#) - Up to the minute times for today's trains
- [TrainTracker Text](#) - Live departure & arrival times direct to your mobile
- [Textile Journey Planner](#) - Journey details straight to your phone
- [Railcards](#) - National Railcards for discounts on your travel
- [Railway Children](#) - Make a donation today
- [Travellers](#) - The website for kids who love trains!
- [Teaching Zone](#) - Free resources for teachers



## Combining information in practice

## National Rail Enquiries

www.nationalrail.co.uk

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**TRAIN TIMES & FARES** | SITE SEARCH | search site | GO

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<a href="#">Birmingham New Street</a>	Arr	18:23	On time	<a href="#">Central Trains</a>   <a href="#">Details</a>
<a href="#">Liverpool Lime Street</a>	Dep	18:24	On time	<a href="#">Central Trains</a>   <a href="#">Details</a>
<a href="#">Chester</a>	Arr	18:25	Cancelled	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
Terminates here	Dep	—	—	
<a href="#">Crewe</a>	Arr	—	—	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
<a href="#">Chester</a>	Dep	18:33	Cancelled	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
<a href="#">London Euston</a>	Arr	18:38	18:35	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Liverpool Lime Street</a>	Dep	18:41	On time	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Liverpool Lime Street</a>	Arr	18:44	18:41	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">London Euston</a>	Dep	18:47	On time	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Dunfermline</a>	Arr	18:48	18:45	<a href="#">Central Trains</a>   <a href="#">Details</a>
Terminates here	Dep	—	—	
<a href="#">Chester</a>	Arr	18:59	No report	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
Terminates here	Dep	—	—	
<a href="#">Shrewsbury</a>	Arr	18:57	18:51	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
Terminates here	Dep	—	—	
<a href="#">London Euston</a>	Arr	18:59	18:51	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Oxenholme Lake District</a>	Dep	18:59	On time	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Crewe</a>	Arr	—	—	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
<a href="#">Holyhead</a>	Dep	19:03	Starts here	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
<a href="#">Crewe</a>	Arr	—	—	<a href="#">Central Trains</a>   <a href="#">Details</a>
<a href="#">Dunfermline</a>	Dep	19:05	Starts here	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Cardiff</a>	Arr	19:11	19:07	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">London Euston</a>	Dep	19:14	On time	<a href="#">Virgin Trains</a>   <a href="#">Details</a>
<a href="#">Manchester Oxford Road</a>	Arr	19:57	19:09*	<a href="#">Arriva Trains Wales</a>   <a href="#">Details</a>
<a href="#">Cardiff</a>	Dep	19:18	On time*	<a href="#">Virgin Trains</a>   <a href="#">Details</a>

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**RELATED LINKS**

- [TrainTracker](#) - Up to the minute times for today's trains
- [TrainTracker Text](#) - Live departure & arrival times direct to your mobile
- [Textile Journey Planner](#) - Journey details straight to your phone
- [Railcards](#) - National Railcards for discounts on your travel
- [Railway Children](#) - Make a donation today
- [Travellers](#) - The website for kids who love trains!
- [Teaching Zone](#) - Free resources for teachers



## Combining information in practice

## Transport for London

www.tfl.gov.uk

The screenshot shows the Transport for London website interface. At the top, there is a navigation menu with links for Tube, DLR, Buses, River, Streets, Cycles, Calo, Coaches, Trams, Rail, and Dial-a-Ride. Below this is a 'Realtime travel news' section with tabs for Tube, Buses, DLR, River, Coaches, Trams, and Rail. The 'Tube' tab is selected, showing a 'Service update' table and a 'Details' section.

Line	Service Status
Bakerloo	Good service
Central	Part suspended
Circle	Part suspended
District	Part suspended
East London	Good service
Hammersmith & City	Part suspended
Jubilee	Good service
Metropolitan	Part suspended
Northern	Part suspended
Piccadilly	Good service
Victoria	Good service
Waterloo & City	Planned closure

**Our terminology explained**

- Good service:** No noticeable impact on your journey
- Minor delays:** Noticeably longer journey time however, stay with your planned route
- Severe delays:** Significantly longer journey time - consider using another route
- Suspended / Part suspended:** Your planned route is unavailable - please use another route or mode of transport

For details of disruptions to station facilities, including lifts and escalators, click on the Tube line links above.

**Details**

**Central**  
CENTRAL LINE: On Saturday 29, Sunday 30 April and Bank Holiday Monday 1 May, suspended eastbound only between Laytonstone and Newbury Park.  
Message received 9:13pm

**Circle**  
CIRCLE LINE: On Saturday 29, Sunday 30 April and Bank Holiday 1 May, suspended between Edgware Road and Liverpool Street (via Kings Cross).  
Message received 8:05pm

**District**  
DISTRICT LINE: On Saturday 29, Sunday 30 April and Bank Holiday Monday 1 May, suspended between High Street Kensington and Edgware Road.





## Why combine information?

- Limited investment available for transport infrastructure improvements
- Use existing transport networks more efficiently
- Through improved network management, more live information available
- Public dissemination of information is a by-product of network management



## The considerations

- Information collection and gathering
- Metadata and information structures (i.e. commonality, etc.)
- Information syndication (distributing content without dilution of message)
- Aggregating content (bringing disparate sources together)
- Delivering content (filtering/sorting, right content, right platform, etc.)



## The challenges

- Making sense of it all – distilling information down, maintaining accuracy, relevance and detail
- Delivering the right amount of detail for the client platform
- Providing an understandable experience and interface to the user – fighting information overload, and without overassuming user knowledge
- Avoiding contradictory material from multiple sources



## The challenges

- Overcoming issues around telemetry have-nots (roads and transport networks with poor or non-existent information)
- Unlocking potential of a geocoded, combination dataset
- Strange position of transport administrators to be public-service information disseminators
- What is the role of public service broadcasters in this new digital age of traffic and travel information provision



## The possibilities

- Multimodal traffic maps
- Intelligent/live data-driven route planning
- Timelapse imagery of CCTV images
- Providing on-demand voiced bulletins
- Exploiting new delivery methods



## The future

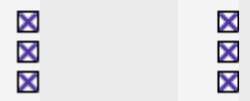
A map of Aberdeen City with a yellow information window overlaid. The window contains text about temporary traffic lights on University Road. The map shows various streets and landmarks like the airport and Dyce.

**Aberdeen City**

**UNIVERSITY ROAD BOTH WAYS  
OLD ABERDEEN, ABERDEEN CITY**

Temporary traffic lights on University Road both ways at A956 King Street

Close window



Map 4km (2.5mi) across

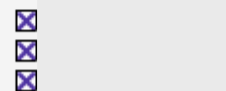
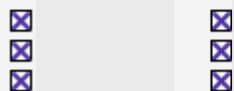


## The future

**Dyce**

<a href="#">Edinburgh</a>	Arr:	Exp:	<a href="#">First ScotRail</a>
Terminates here	16:51	16:48	
	Dep:		
	—	—	

Close window



Map 4km (2.5mi) across

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## The future

A map interface showing a location in Bishopton, Scotland. The map is centered on a road network. A large yellow rectangular inset window is overlaid on the map, displaying a live traffic camera feed. The inset window has a title bar with the text "46 Cromwood Rb NW" and "Wed 30 Nov 15:49 NADICS". The camera feed shows a multi-lane road with several cars and a large red truck. A "Close window" button with a close icon is located at the bottom right of the inset window. The map background shows various landmarks and road names, including "Old-Kilpatrick", "Erskine", "Dargavel", and "Nether Southbar". At the bottom of the map interface, there are navigation controls: a zoom in (+) button, a zoom out (-) button, a help (?) button, and a vertical stack of four close (X) buttons. Below the zoom controls, it says "Map 4km (2.5mi) across". At the very bottom, there is a copyright notice: "© Crown Copyright, licence 100040639".



Map 4km (2.5mi) across

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