EasyWay

Annual Forum 2010

Shortcut to the future.

Lisbon • November 16th–18th

Urban/Interurban Traffic Data Sharing to deliver seamless Information services – A Scottish Example

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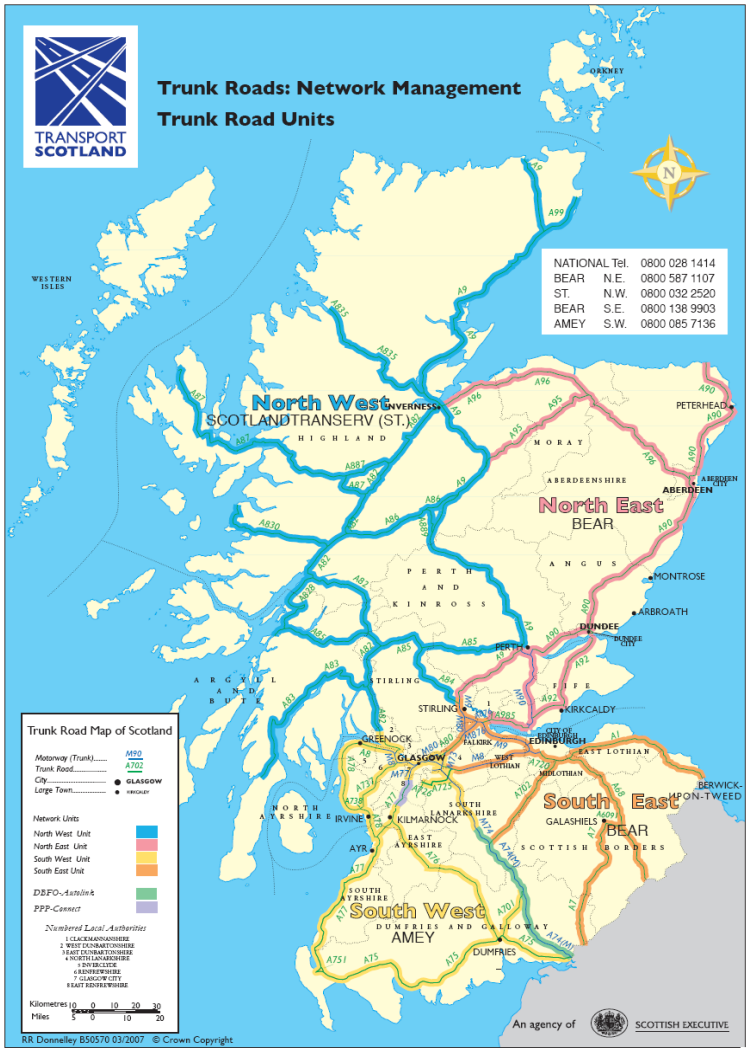
Introduction

Transport Scotland

- Executive Agency of the Scottish Government

Delivery Priorities

- Improved connections across Scotland
- Better journey times, better reliability
- Greener transport alternatives, reduced emissions
- Increased safety, more innovation



Transport Scotland – Traveller Information

Objectives

- Provide up-to-date accurate travel information on current traffic conditions **without rigid distinction on road type** (i.e. trunk/local)

- **Expansion of geographic coverage cross border** – utilisation and dissemination of Highways Agency information for routes crossing the Scotland/England border

- Focus on working with Local Authorities to **address key corridors** in and out of main population centres

TS/CEC Traffic Data Exchange – Rationale

Aim

- A **more informed customer** coming onto and leaving the strategic motorway and trunk road network…

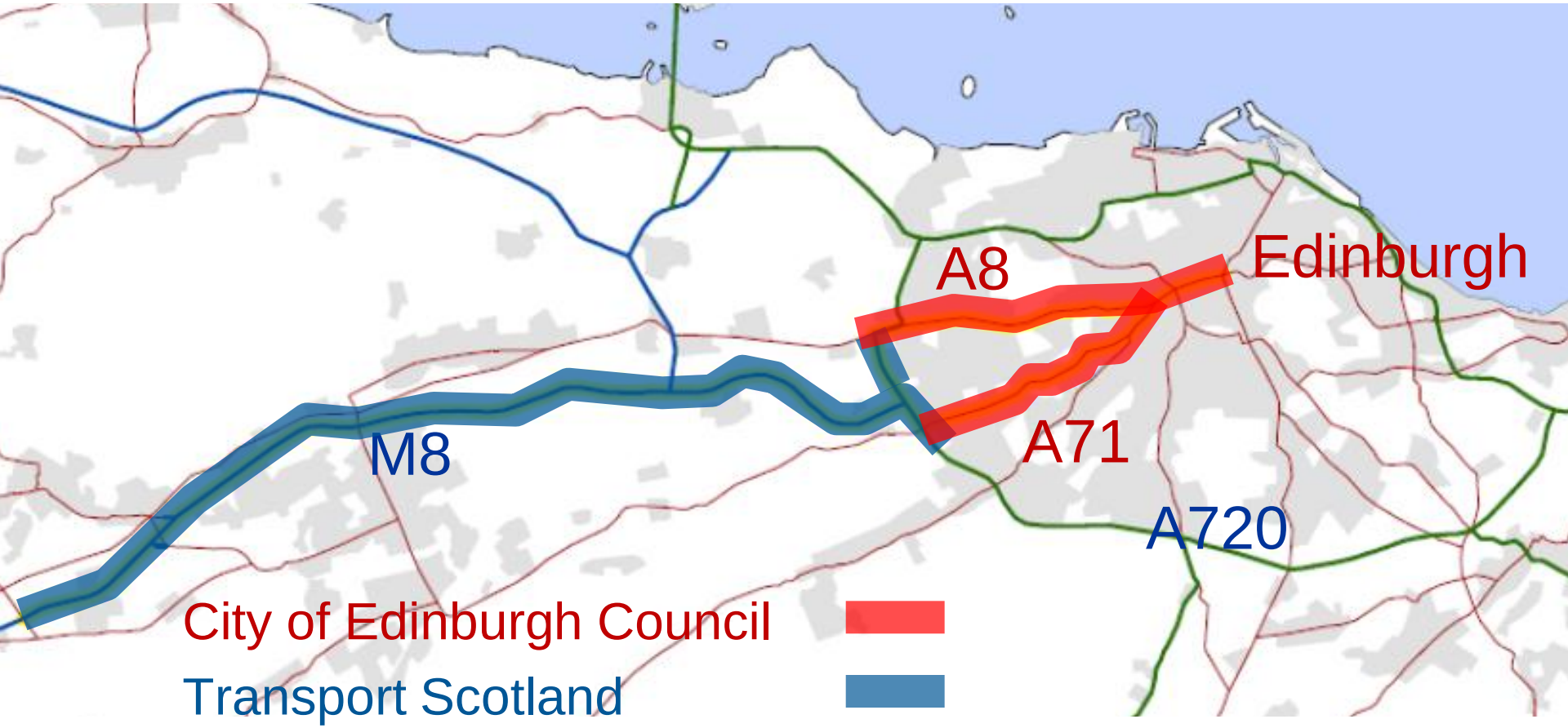
Thinking like the Customer

- I do not differentiate by network type;
- I want to travel to/from Edinburgh City Centre on my route using the city roads and Motorway network;
- I want to know the fastest way to my destination;
- I am interested in traffic conditions ahead which may slow my progress; and
- I want this information **before leaving and whilst travelling**

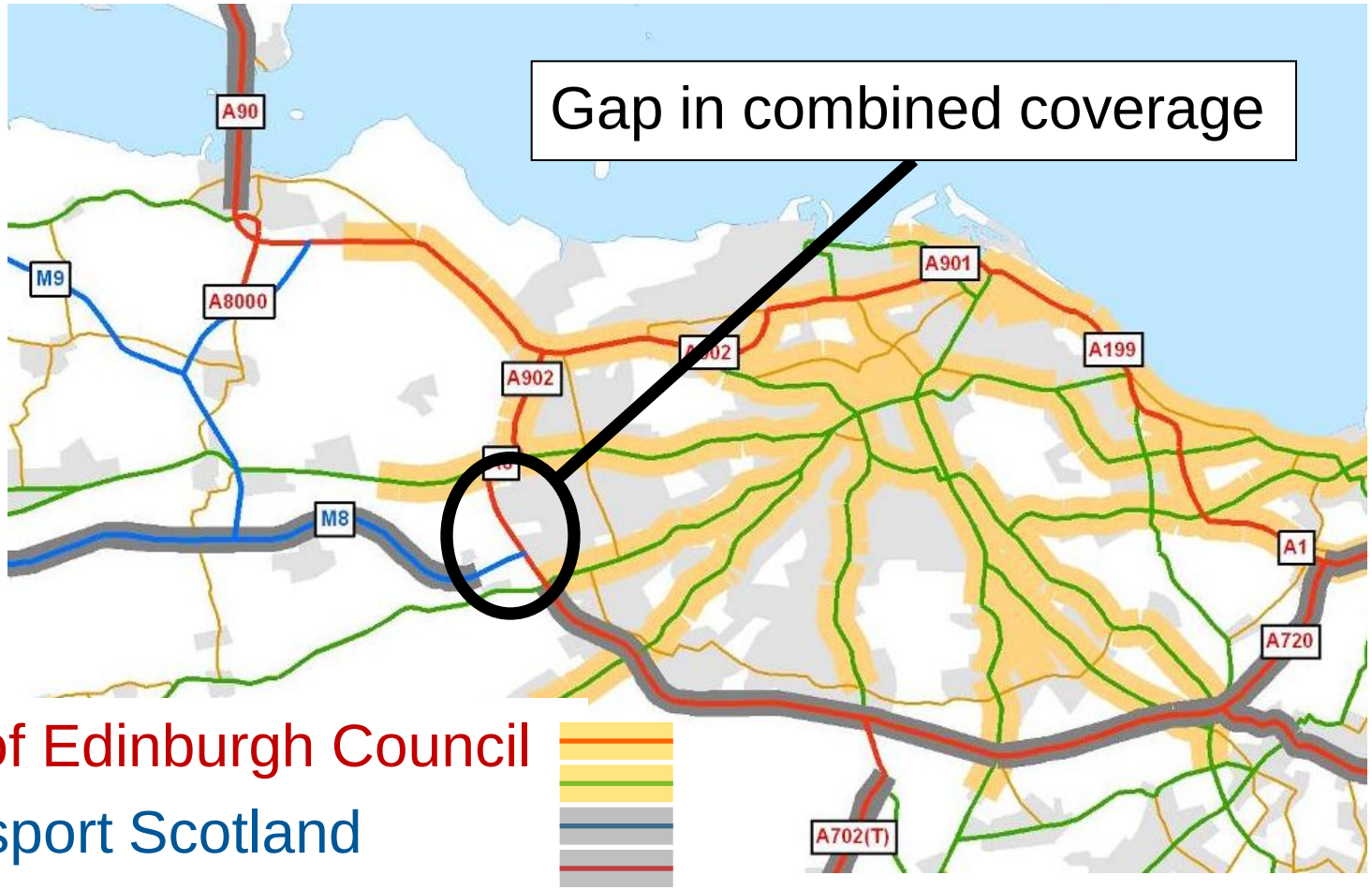
TS/CEC Traffic Data Exchange – Project Background

- Examine the potential to exchange traffic information
  - **Between Transport Scotland (Traffic Scotland System) and City of Edinburgh Council (UTMC)**
- 'Proof of Concept' trial – focussing on a specific route covering both the TS and CEC road networks
  - **M8 to Edinburgh City Centre via the A720 and A8 or A71**
- Trial focussed on the provision of journey time:
  - **Displayed on roadside VMS**
  - **Displayed on TS and CEC web services**
- DATEX II is the common European platform used to exchange this traffic information

Proof of Concept Route



Prior TS & CEC Journey Time Coverage



City of Edinburgh Council

Transport Scotland

Technical Appraisal Report

- Option 1: Use existing Infrastructure
- Option 2: Invest in new Infrastructure
  - **2a: New TS Infrastructure**
  - **2b: New CEC Infrastructure**
- Option 3: adopt UTMC ANPR Open Protocol
  - **Based on procurement of completely new system**
  - **No new site equipment required**

Solution

- Interim Solution (Option 1 + 2b)
  - **Integration (fusion) of data from existing TMU sites plus the deployment of additional CEC ANPR cameras at Key Location (Hermiston Gait)**
  - **Data exchange between TS and CEC via DATEX II feeds**
- Long Term Solution (Option 3)
  - **Adoption of UTMC ANPR Open Protocol**

Prior TS & CEC Journey Time Coverage

City of Edinburgh Council

Transport Scotland

Upgraded TS & CEC Journey Time Coverage

New City of Edinburgh Council

New Transport Scotland and City of Edinburgh Council

Solution Benefits

- Interim Solution (Option 1 + Option 2b)
  - Option 1 element
    - **Quick implementation into Transport Scotland JTS;**
    - **no additional roadside infrastructure deployment needed**
    - **Fusion of TMU data with ANPR data on M8 will provide more accurate and robust Journey Time calculations**
  - Option 2b element (Utilisation of ‘spare’ CEC ANPR cameras)
    - **Installation of CEC cameras to co-locate at TS ANPR Sites**
    - **Significant cost saving when compared to Option 2a**
    - **Short implementation Time**

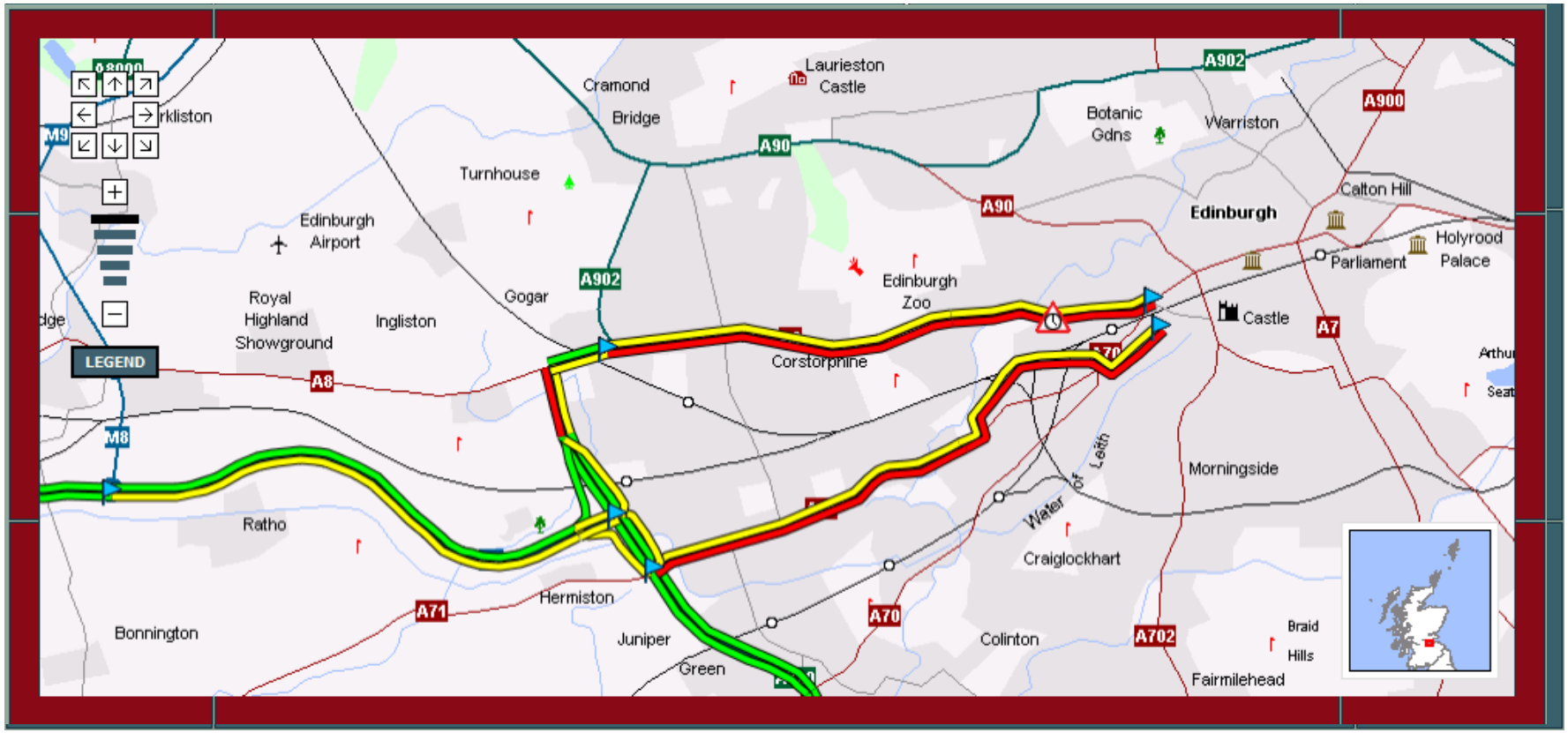
- Long Term Solution
  - Adoption of UTMC ANPR Open Protocol
    - **Likely to prove beneficial in future;**
    - **Developments in Ireland (M50) will be watched with interest**

Information Delivery - Work required

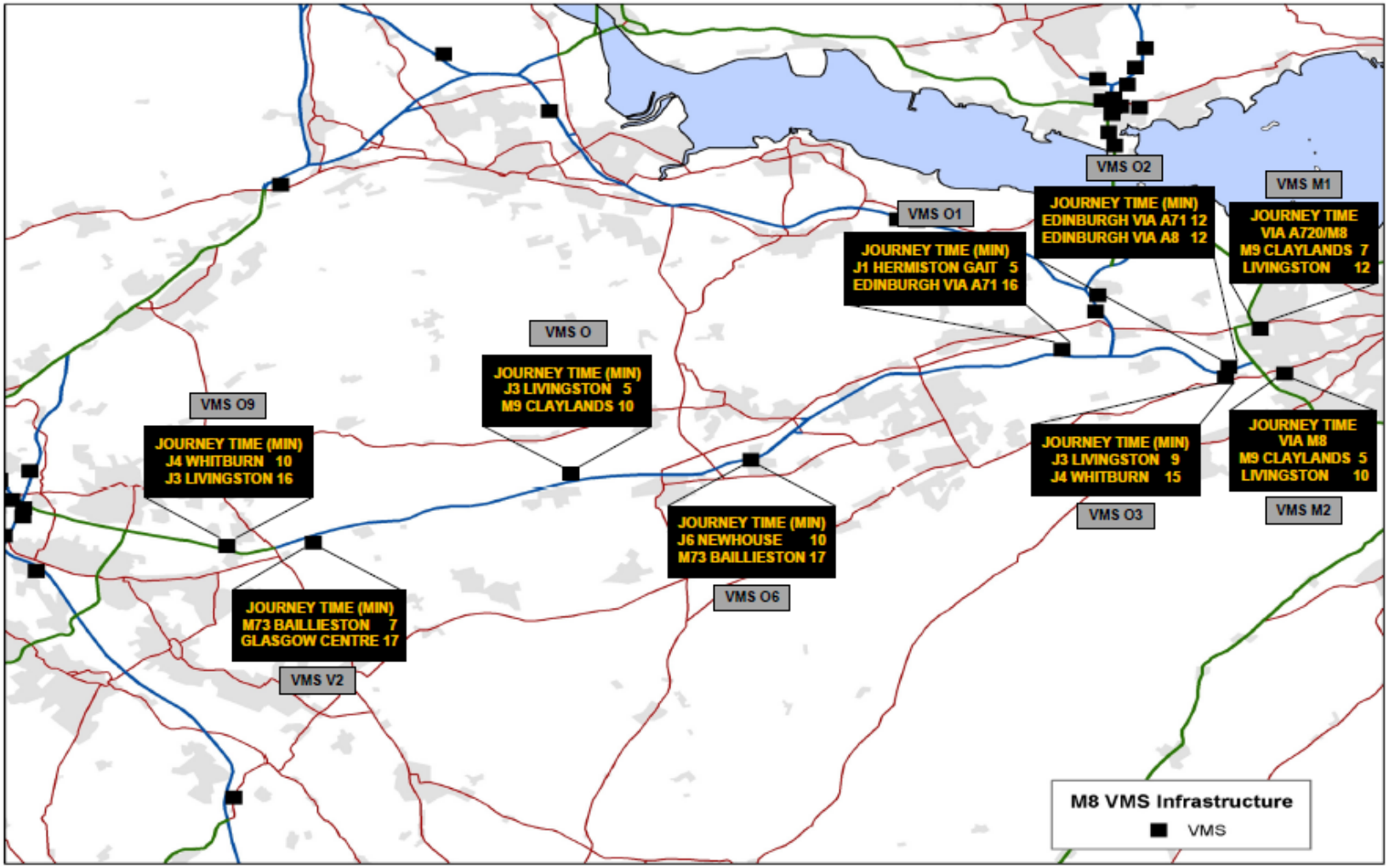
- Modifications to existing Traffic Scotland website journey times;
- Journey Time Fusion;
- Route Journey Time Validation;
- Dissemination of Journey Times on VMS
- Redeveloped and deployed the updated network manager tool

Information Delivery

Upgraded Network Manager Journey Time Coverage

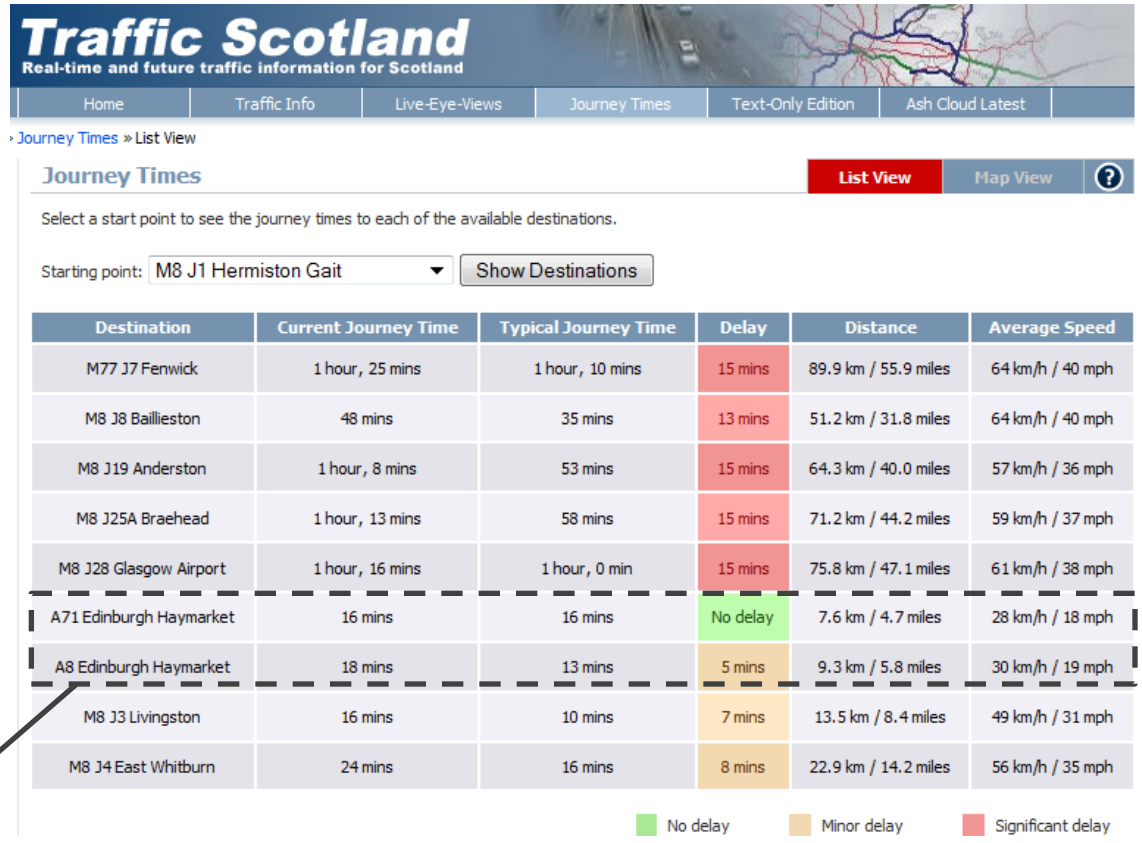


Information Delivery – VMS Plans



Information Delivery

- Live Soft Launch
  - Planned for November 2010 on TS website
- Live Hard Launch
  - On VMS December 2010



Traffic Scotland
Real-time and future traffic information for Scotland

Home | Traffic Info | Live-Eye-Views | Journey Times | Text-Only Edition | Ash Cloud Latest

Journey Times » List View

Journey Times — List View | Map View

Select a start point to see the journey times to each of the available destinations.

Starting point: M8 J1 Hermiston Gait — Show Destinations

Destination	Current Journey Time	Typical Journey Time	Delay	Distance	Average Speed
M77 J7 Fenwick	1 hour, 25 mins	1 hour, 10 mins	15 mins	89.9 km / 55.9 miles	64 km/h / 40 mph
M8 J8 Baillieston	48 mins	35 mins	13 mins	51.2 km / 31.8 miles	64 km/h / 40 mph
M8 J19 Anderston	1 hour, 8 mins	53 mins	15 mins	64.3 km / 40.0 miles	57 km/h / 36 mph
M8 J25A Braehead	1 hour, 13 mins	58 mins	15 mins	71.2 km / 44.2 miles	59 km/h / 37 mph
M8 J28 Glasgow Airport	1 hour, 16 mins	1 hour, 0 min	15 mins	75.8 km / 47.1 miles	61 km/h / 38 mph
A71 Edinburgh Haymarket	16 mins	16 mins	No delay	7.6 km / 4.7 miles	28 km/h / 18 mph
A8 Edinburgh Haymarket	18 mins	13 mins	5 mins	9.3 km / 5.8 miles	30 km/h / 19 mph
M8 J3 Livingston	16 mins	10 mins	7 mins	13.5 km / 8.4 miles	49 km/h / 31 mph
M8 J4 East Whitburn	24 mins	16 mins	8 mins	22.9 km / 14.2 miles	56 km/h / 35 mph

No delay | Minor delay | Significant delay

Edinburgh City Centre Destinations

Conclusions

- Future Developments options
  - Expand (Further extensions with other local partners);
    - **Partner with other Scottish Cities based on Edinburgh experience**
  - Deepen (more detailed and reliable information for existing);
    - **Incident and Event Information**
    - **Journey time to include Park & Ride alternatives**
  - Exploit new Technical Developments;
    - **Development of an ANPR UTMC Open Protocol**

Conclusions

- Lessons for EasyWay
  - Partnership working requires shared vision/ideas and commitment on:
    - Using information exchange to add economic/operational value;
    - Delivery of benefits which secure network efficiency; and
    - **Adding value to users.**

    Virtuous circle: We design systems which exist to serve drivers who then make the best decisions which makes it easier to deliver network efficiency
  - DATEX II provided the platform to allow this development
    - Has proved successful in data exchange – no real issues
    - Use of DATEX in this project is consistent with ITS Directive & Action Plan
  - The urban / strategic network traveller information interface requires
    - Significant improvements to satisfy user requirements
    - Presents challenges to authorities to collaborate effectively in wider interest
  - Future evaluations will demonstrate the impact of this provision

THANK YOU

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