

## Community Chest

Few problems are completely novel, and many organisations share similar requirements and have faced the same obstacles before.

Around ten years ago, a group of local authorities, broadcasters, network operators (including the Highways Agency) and public transport companies came together to form the Travel Information Highway Community. The aim of the TIH Community is to help members build universal system-to-system links to exchange travel information, saving money, time, duplication and effort over the 'build your own' model that had prevailed in the past.

By sharing the experience of members, the TIH Community has distilled its knowledge into a framework of guidelines known as the TIH Principles, a set of simple rules to define a common approach based on proven techniques and best practice. A full explanation of the TIH Principles can be found on the TIH website at [www.tih.org.uk](http://www.tih.org.uk).

Using the TIH Principles, some pioneer users including the Highways Agency, BBC and Trafficlink have adopted and refined a number of existing specifications to cover all kinds of travel and traffic information. The main specifications include:

### OTAP

Network Operators' protocol for traffic event data (will merge into DATEX II soon)

### DATEX II

Emerging European Standard for all traffic data including VMS settings, flow and journey times

### TPEG

Broadcasters' favoured format for all types of travel events

All the TIH recommendations share the **TPEG Loc** location referencing that adds road name, direction of travel and other details to the international latitude/longitude reference standard WGS 84.

Full descriptions of each specification can be found in the *Technical Appendix* on the website if you'd like to delve into the details, but the simplest way to explain *how* these standards work is to think of them like a simple, standard plug.



## Plug and Play

Remember the hassle of getting computers, printers, and other kit to talk to each other before the advent of USB?

We had parallel and serial cables; different kinds of serial ports with nine or fifteen pins; special plugs for keyboards and mice. The standards were confusing and wasteful, and setting up a new printer might swallow a whole morning.

With USB – as with the TIH interfaces – you know that the same plug will work anywhere. You buy a new mouse, plug it in, and carry on working.

With the TIH OTAP specification, to take one example, if your traffic data is packaged *by your own system* and made available on a web-server, then everyone *who you give permission to* can see it and use it. No-one will come asking for the data in a different format, because they have the power to do that for themselves without any extra work at your end and without altering the data on your system.

What's more, if someone can use your OTAP service, then you can probably use theirs. This is a valuable benefit now that more and more travel and transport organisations are collaborating to better manage the interfaces between them.

For those in Local Highways Authorities this is even more useful now the Traffic Management Act of 2004 has created a statutory duty to facilitate the flow of traffic on their own network and on those of their neighbours.



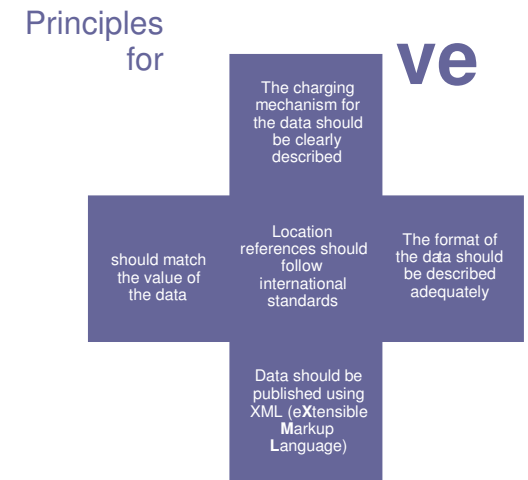
## How does it work?

We want to exchange data and computers don't like surprises. To effectively exchange information, the format of the data needs to be agreed in advance. If the data doesn't match exactly what the receiving system is expecting to see, the exchange will fail.

Following the TIH Principles makes sure that we all make our data available in a common format and using common standards for locations, event types, etc.

The Principles recommend language independent look-up codes with descriptions substituted by whatever system reads the file. This means that data is easy to use in any language without the need for translation – for use in tourist information for instance.

The TIH Principles do not compromise your data ownership, nor do they imply a data warehouse. TIH is not a system in itself, just the agreed framework for joining many systems together over the Internet and it sets out the rules for these key areas of data exchange:



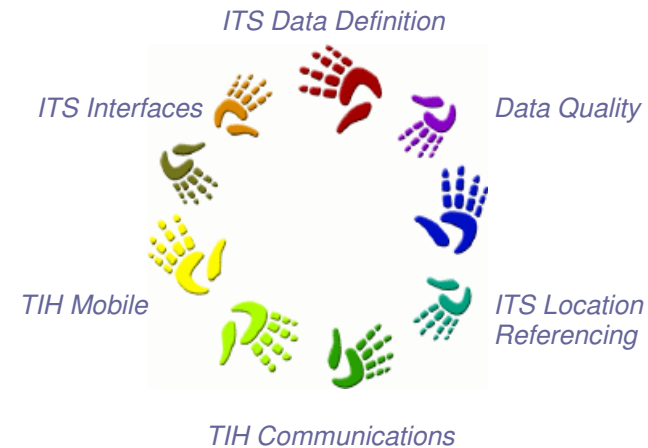
As you can see, there's no mystique or complexity to the Principles – just some common-sense standards that we can all work with.



## Helping hands

The TIH Principles are developed and recommended by independent members within a series of Working Groups. Each group is led by a recognised expert in that area.

All members are welcome to contribute to the Working Groups, which currently cover:



The TIH Community cooperates with urban traffic management developments through the UTMC Development Group and bus information through the Real Time Information Group.

## Getting involved

The Travel Information Highway can help your organisation to make its travel data available to operational partners, suppliers and even the general public.

If you would like to learn more about how your organisation would benefit by getting involved, just register as a member on the TIH website [www.tih.org.uk](http://www.tih.org.uk). Here you can access the full TIH documentation including the TIH Principles, a weekly digest of current activities, the Technical Appendix which explains exactly what your technical people need to do, and the Business Appendix which includes case studies and sample contracts for your commercial team.

You can also contact us at [helpdesk@tih.org.uk](mailto:helpdesk@tih.org.uk) if you would like to discuss any aspect of TIH or need some support or technical advice to help get your organisation on board.



## Travel information

### with a single voice

Most travellers neither know nor care who runs the road, bus or train they are travelling on; they just want to know which service or route to take and if the way ahead is clear.



This lack of distinction is crucial for travel information providers, because the way we divide up our networks into operator-sized chunks is largely meaningless in the minds of the people we are trying to reach.

The solution, of course, is to pool travel information and make it available in ways that blur the boundaries between providers to give a joined-up view of the transport network.

But (and it's a big but) we are not starting from a clean sheet of paper.

Countless organisations from local authorities and government agencies to train and bus operators have invested in systems to manage their own information on urban traffic, motorway incidents, timetables and parking; in fact every conceivable data-type for every mode of transport. What's more, few of these systems share a common language so they can't talk to each other.

The benefits of sharing data are clear – both for informing travellers and improving how we manage events across local boundaries – but we can see how complex this might be. Thankfully, help is at hand...