



TN-ITS Pilot

Ireland Overview

TN-ITS General Assembly and Session PR04 EU EIP Sub-Activity 4.7
8 June 2016 - ITS European Congress, Glasgow



Source of image: ROSATTE web site (ertico.com/rosatte/)

TN-ITS - Organisation/Structure

Project timelines

- Start 01-Feb-2016
- End 30-June-2017 (TBC)

Project Review/Governance

- Department of Transport, Tourism & Sport:
 - John McCarthy - Chair
 - Margaret Malone
- Transport Infrastructure Ireland:
 - David Laoide-Kemp - Vice Chair – ITS Ireland
 - Brendan Kennedy - GIS Manager TII

Maynooth University Research Team

- Dr Tim McCarthy (PI),
- Dr Paul Lewis (Co-PI & Developer)
- Daire Walsh (Developer)

TN-ITS - Workplan Overview

Task/Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Project Management													
Data Inventory													
Platform Performance Metrics													
Data Standards & TN-ITS													
Platform Architecture Design including Pilot Data Services													
Module Coding													
Data loading													
Platform Performance Testing													
Documentation													
Plan for Service extension													
Promotion/Outreach													

TN-ITS - Spatial Data Provider



- Responsibility for the primary and secondary road network in Ireland
- 5,000km long and is made up of motorways, dual carriageways and single lane roads
- **Trans-European road network (TERN)**



IE - LRS - Sample Mainline Segmentation

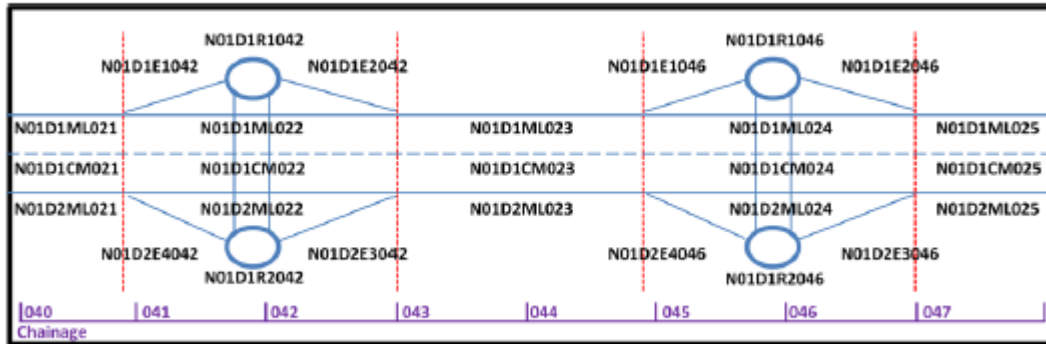


Figure 1: Sample Mainline Segmentation

IE - LRS - Sample Mainline - Split Junction

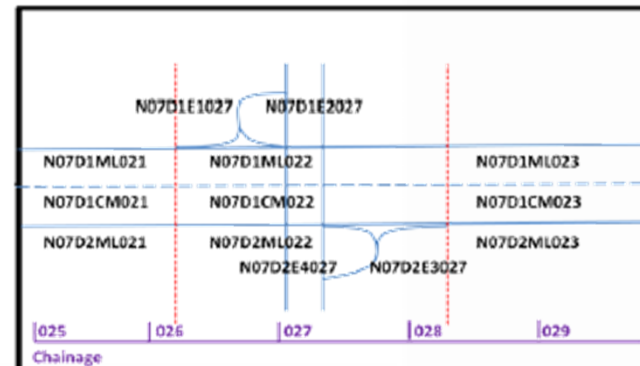


Figure 3: Sample Mainline Segmentation - 'Split' Junction

TN-ITS - Data Dictionary Sample

SpeedLimitSigns

DataItem	Data Type	Sample Ent	Comment	elist Values		
RouteID	Text(15)					SpeedLimit
Road	Text(5)					30
Direction	Text(5)					50
Lane	Text(5)					60
Pair_ID	Text(10)					80
CreateDate	Date					100
StartDate	Date					120
EndDate	Date					
Chainage	Double(12,3)	79.452	Derived from NRA Network Mo			SpeedLimitType
ApplicationEasting	Double(12,3)	123456	ITM Coordinate (Easting)			Ordinary Speed Limit
ApplicationNorthin	Double(12,3)	123456	ITM Coordinate (Northing)			Built Up Area Speed Limit
OnRouteEasting	Double(12,3)					Regional Road Speed Limit
OnRouteNorthing	Double(12,3)					Local Road Speed Limit
SpeedLimitType	Text(50)					National Road Speed Limit
SpeedLimitKmh	ShortInt					Motorway Speed Limit
SpeedLimitSource	Text(25)					Special Speed Limit
BothSides	Text(10)		Boolean			Roadworks Speed Limit
EDMSLink	Text(200)					Periodic Special Speed Limit
Comments	Text(200)					Unknown
						SpeedLimitSource
						LA Formal Application
						NRA Data
						ARAN-SCRM Annual Surveys
						Other
						Unknown

TN-ITS - Data Dictionary Sample

SpeedLimitZones

DataItem	Data Type	Sample Entry	Comments	Code List Values
RouteID	Text(15)			SpeedLimit
Road	Text(5)			30
Direction	Text(5)			50
Lane	Text(5)			60
Pair_ID	Text(10)			80
CreateDate	Date			100
DateFrom	Date			120
DateTo	Date			
ChainageStart	Double(12,3)	79.452	Derived from NRA Network Model	SpeedLimitType
ChainageEnd	Double(12,3)	79.452	Derived from NRA Network Model	Ordinary Speed Limit
EastingStart	Double(12,3)	123456	ITM Coordinate (Easting)	Built Up Area Speed Limit
NorthingStart	Double(12,3)	123456	ITM Coordinate (Northing)	Regional Road Speed Limit
EastingEnd	Double(12,3)	123456	ITM Coordinate (Easting)	Local Road Speed Limit
NorthingEnd	Double(12,3)	123456	ITM Coordinate (Northing)	National Road Speed Limit
SpeedLimitType	Text(50)			Motorway Speed Limit
SpeedLimitKmh	ShortInt			Special Speed Limit
StartDescription	Text(250)			Roadworks Speed Limit
EndDescription	Text(250)			Periodic Special Speed Limit
EDMS_Link	Text(250)			Unknown
Notes	Text(250)			
				SpeedLimitSource
				LA Formal Application
				NRA Data
				ARAN-SCRIM Annual Surveys
				Other
				Unknown

TN-ITS – Technical Considerations

- Base Configuration:
 - Amazon Web Services AWS – dedicated IE-TN-ITS VPC for hosting EC2 & RDS capacity
 - Load Balanced Ubuntu Servers running Apache
 - Geospatial Relational Database Service (RDS) – PostgreSQL – PostGIS extension
- Short-Term Objectives:
 - Build out backend Data-Structures
 - Make available the Restful Interface
- Medium-Term Objectives:
 - Build out data-ingestion and update modules
- Longer-Term Objectives:
 - Enable platform for larger/complete network data sets

THANK YOU