

Testing a technology solution to avoid a hard border between Northern Ireland and the Republic of Ireland

FUJITSU

“Drive Through Border”

February 2019



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Contents

1. Avoiding a hard border between Northern Ireland and the Republic of Ireland	3
2. The 'Drive Through Border' Concept.....	4
2.1 Benefits of the 'Drive Through Border' Concept.....	4
2.2 An Overview of the 'Drive Through Border' Solution.....	5
3. Implementing the 'Drive Through Border' Concept.....	7
3.1 An Accelerated Delivery Strategy – Proof of Concept (PoC).....	7
4. Summary.....	8

1. Avoiding a hard border between Northern Ireland and the Republic of Ireland

As the EU Exit deadline of 29th March 2019 approaches, the nature of the UK's exit will be defined either by the terms of a negotiated Withdrawal Agreement, or by a default 'No-Deal' withdrawal.

This paper sets out plans for the immediate commencement of a short Proof of Concept (PoC) that tests a technology solution which maintains an open free-flowing border, enables customs checks to be made by the UK and Irish Governments, and avoids the need for the backstop. This solution is also relevant in the event of a no-deal outcome, where the same objectives are required for an open border between two different customs regimes.

Withdrawal Agreement 25th November 2018

"RECALLING the commitment of the United Kingdom to protect North-South cooperation and its guarantee of avoiding a hard border, including any physical infrastructure or related checks and controls, and bearing in mind that any future arrangements must be compatible with these overarching requirements."

As a consequence of the UK exiting the EU, the land border between Northern Ireland and the Republic of Ireland will represent a border between two customs and regulatory regimes. The political and logistical challenges of this are well known, particularly in relation to the backstop arrangement contained within the Withdrawal Agreement. The UK, the EU and the Republic of Ireland are all committed to avoiding a hard border between Northern Ireland and the Republic of Ireland, with no physical checks in any future trading arrangement with the EU.

To deliver on this commitment, and avoid a physical border, customs checks, and the need for the backstop to ever be implemented, innovative technology solutions to automate customs border management and processing must be seriously considered to ensure goods vehicles continue to flow freely across the border. Fujitsu has developed the 'Drive Through Border' Concept using existing technology and is ready to demonstrate its viability and scalability as a future digital customs border free from physical checks and infrastructure at the border. Our recommendation is for closer involvement from the Government within this process to validate the suitability of this technology in real time.

Developed by Fujitsu in partnership with BluJay Solutions, a leading provider of supply chain and global customs technology solutions, the 'Drive Through Border' solution will achieve the following key objectives, without the need for any new physical infrastructure or checks at the border:

1. Provide complete visibility of vehicle journeys carrying goods for import and export;
2. Automate customs processing and checks at the border crossing point for all required goods, thereby maintaining the free flow of traffic across the border;
3. Maintain health and safety standards through effective tracking and management of Sanitary and Phyto-Sanitary (SPS) products, and other controlled goods such as medical and hazardous products;
4. Minimise any additional bureaucracy and associated costs to industry to comply with new customs processes; and,
5. Establish a digital customs border management platform from which future services and benefits can be developed, including: advanced risk assessment capabilities, Customs Self-Assessment for trusted traders, and a single border management portal for the multiple border facing agencies.

This paper describes Fujitsu's 'Drive Through Border' concept, demonstrating how it can be immediately tested and validated, in the form of a Proof of Concept, in line with the Article 50 timeframes and then rapidly developed into a full solution for industry wide deployment and use by the UK, and potentially Irish, Governments.

2. The 'Drive Through Border' Concept

The Fujitsu 'Drive Through Border' concept automates the Customs management processes at the land border between Northern Ireland and the Republic of Ireland border without the need for new physical infrastructure or border checks.

2.1 Benefits of the 'Drive Through Border' Concept

Leveraging its investments in technology research and development, Fujitsu together with BluJay Solutions, have developed the 'Drive Through Border' concept, to automate customs processing, compliance checks and risk assessments for goods crossing the land border between Northern Ireland and the Republic of Ireland. Automation through this technology solution will ensure goods traffic continues to flow as freely after the UK's exit from the EU, as it does today, whilst maintaining security and customs compliance standards.

This innovative solution addresses key challenges resulting from a range of potential EU Exit scenarios by providing;

- Automated checks for Customs declarations and compliance documentation at the border, without any new physical infrastructure or physical checks;
- Real-time visibility of goods vehicle journeys to enhance border security capabilities and safety standards; and
- The ability to instruct selected vehicles to be routed to pre-determined inspection depots away from the border, whilst monitoring their journeys to these locations.

The 'Drive Through Border' concept will also establish a technology platform to create future border management benefits and efficiencies, for the UK Government and industry, including;

- Improving the efficiency of border facing departments through better coordination of activities and inter-departmental interventions, creating a single government portal;
- Improved ability to tackle the excise duty gap through greater visibility of the journeys and destinations of excise goods; and
- Lower cost to industry by using this platform as a foundation to automatically generate certain customs declarations and introduce simplified customs procedures (known as Customs Freight Simplified Procedures – CFSP), thereby and reducing the administrative burden on industry.

2.2 An Overview of the 'Drive Through Border' Solution

The 'Drive Through Border' concept has been designed through extensive research, consultation with a range of industry groups and experts and in partnership with Blujay Solutions. The 'Drive Through Border' concept can be rapidly developed on existing proven, reliable and scalable platforms, and further enhanced to meet any specific new Customs policy requirements.

The diagram below provides an illustration of the vision of the 'Drive Through Border' concept:

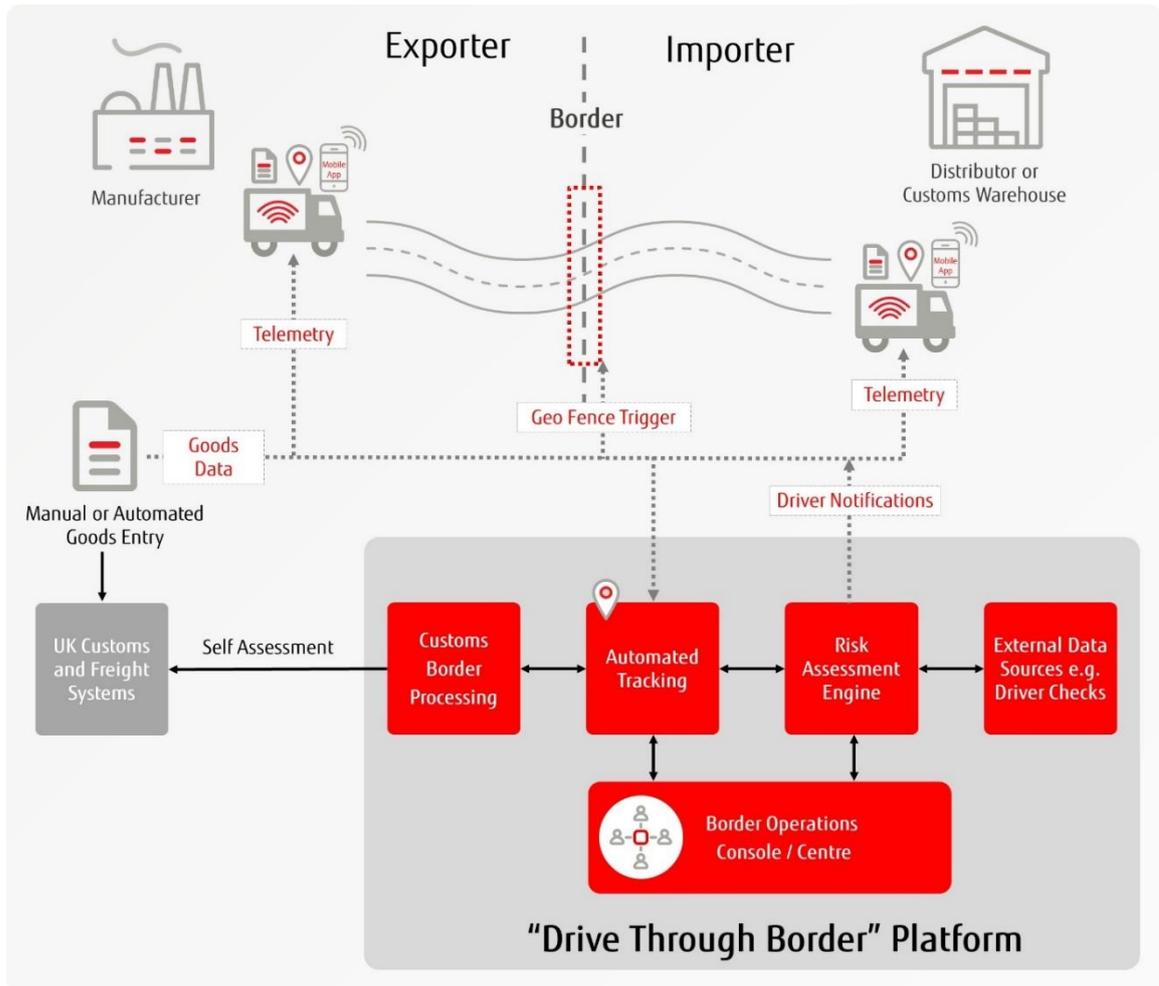


Diagram 1 - The 'Drive Through Border' vision

The 'Drive Through Border' concept establishes the technology platform for the future digital UK border, enabling new services to be created and launched, to provide a wealth of benefits including;

■ **Monitoring the Journeys of Goods Vehicles**

The 'Drive Through Border' concept will gather journey information from appropriate tracking devices. Benefits of vehicle tracking include: deeper risk assessment capabilities, full visibility of the destination to reduce excise fraud, and improved control of goods in transit from sea ports to customs warehousing to protect duty recovery rates.

■ **Automating Customs processing at the Border**

The 'Drive Through Border' platform will provide full visibility of the vehicle location, its goods and its customs documents at all stages of its journey. Through a technique known as 'Geo-fencing', a vehicle crossing the border will signal its location to the system, which records the date, time and location of the border crossing. Processing of customs documentation associated with the goods in the vehicle are automatically completed and the results presented electronically to Border Force and HMRC Customs for safety, security and fiscal purposes as required.

■ **Strengthened Risk Assessment Capabilities**

Advanced risk assessment will be provided by using Artificial Intelligence (AI) technology to analyse the vehicle journeys, combined with information on goods, traders and other data sources such as social media. The Border Force agency will be able to react to suspect vehicles, which are identified and flagged by the AI-driven analysis, for further inspection. Vehicles flagged for inspection by this risk engine can be automatically notified through an instruction sent to the vehicle tracking device which requests the driver to re-route to a pre-determined inspection point. The automation of risk and compliance processes for legitimate trade would also give the authorities (Border Force, HMRC, PSNI etc) the ability to focus efforts on deliberate non-compliance.

■ **Customs Self-Assessment**

The platform will support the introduction of 'Customs Self-Assessment' by allowing Authorised Economic Operators (AEO's), or similarly approved traders, to declare goods movements on a periodic basis to the platform. This removes the need for full customs declarations, significantly reducing administration overheads on both industry and government, including declaration systems CHIEF and CDS, and finance systems such as VAT processing platforms.

■ **One Government at the Border**

This centralised system will provide all Border Agencies with shared access to a wealth of data, creating the ability to improve coordination of inter-departmental border activities including combining inspections from Customs (HMRC) and Department for Environment, Food and Rural Affairs (DEFRA) agencies.

■ **Future Border Initiatives**

The 'Drive Through Border' technology platform provides the foundation to support future government initiatives to improve and optimise UK border operations. Built on open standards, the technology platform is flexible and able to take advantage of new and emerging technologies, as and when they reach maturity and wider industry adoption. For example:

- Radio Frequency Identification (RFID) is becoming a standard within the global supply chain industry, providing increased accuracy and automation in registering individual goods crossing the border
- Industry trials of Blockchain technology are promising new levels of data integrity and security, automating the management of complex fiscal data transactions, and
- Robot Process Automation (RPA) offers efficiency improvements by automating today's manual customs and compliance processing at the border.

3. Implementing the 'Drive Through Border' Concept

Our proposal presents a strategy to accelerate the implementation of the 'Drive Through Border' concept, and in parallel enhance the solution to meet specific requirements of trade policy resulting from EU Exit negotiations.

The first phase of our acceleration strategy consists of a short Proof of Concept (PoC) exercise. This will prove the core functionality of our concept: real-time tracking of goods vehicles. The solution design will be tested and refined throughout this phase ahead of the initial launch.

3.1 An Accelerated Delivery Strategy – Proof of Concept (PoC)

The 'Drive Through Border' concept will be performed in collaboration with a selection of traders from industry to ensure it meets design specifications. Lessons learnt from the PoC will enable us to identify, and address, improvements to the original design prior to launching a live service.

The PoC will test the ability of the 'Drive Through Border' to perform key objectives, including;

- Tracking the journeys of goods vehicles from origin (trader) to destination (importer);
- Collection of vehicle manifest data into the platform (i.e. details of goods in transit in the vehicle);
- The process to register the loading and unloading of goods from the vehicles on the platform;
- The ability to capture the date, time and location of the vehicle border crossing; and,
- Access to an online portal which visually presents the movement of vehicles in real-time.

The diagram below provides an illustration of the design for the PoC exercise:

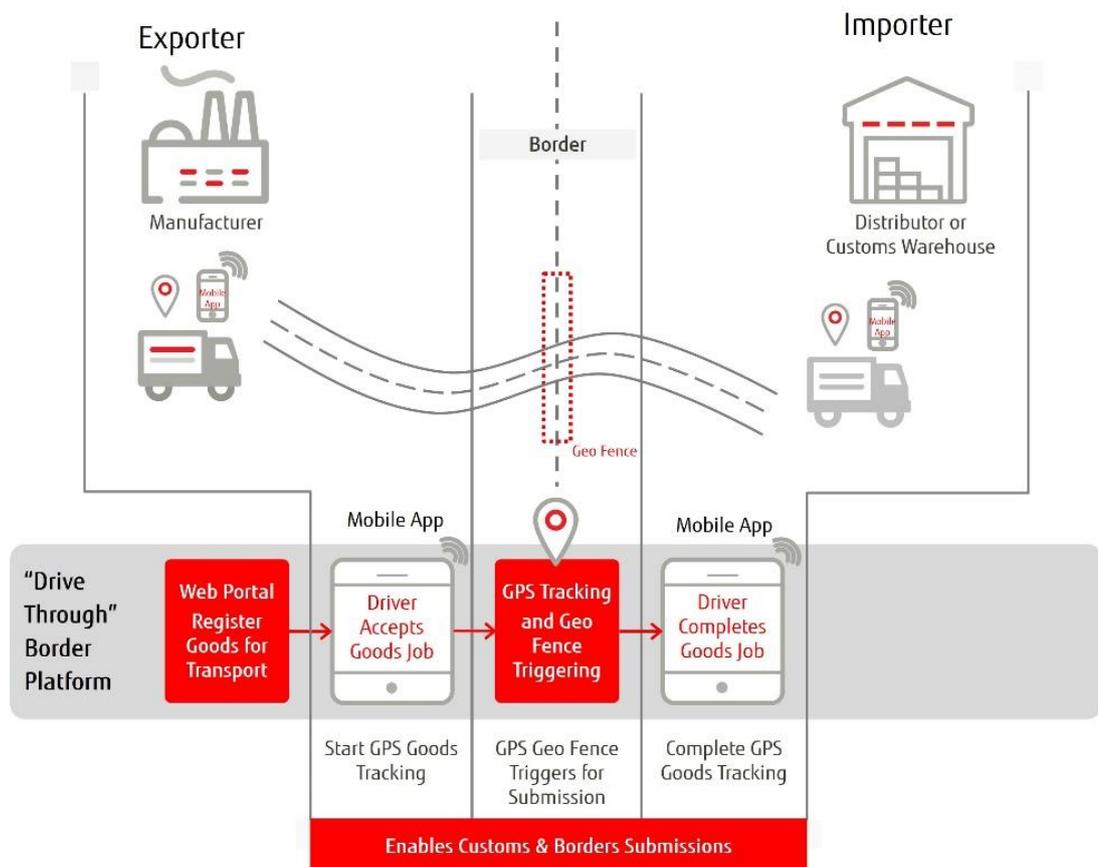


Diagram 2 - 'Drive Through Border' PoC

4. Summary

With the EU Exit date rapidly approaching, this paper demonstrates the ability to immediately test and validate Fujitsu's 'Drive Through Border' solution in the form of a Proof of Concept.

A prototype operation will be commencing shortly, limited to a small number of select organisations. The PoC will address some of the key challenges for the land border between Northern Ireland and the Republic of Ireland.

Having an extensive portfolio of innovative, cutting-edge products and services, Fujitsu can work in partnership with all parties to create an effective solution for the border between Northern Ireland and Republic of Ireland.

This concept can be rapidly developed into a full solution for industry wide deployment and use by the UK, and potentially Irish, Governments forming the basis of a future digital customs border.

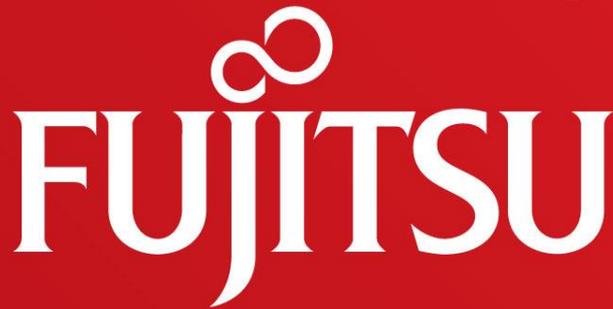
Strategic

Flexible

Trusted

Focused

Dependable



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Reliable

Enabled

Resilient

Delivered

Proven