



Lippu project report on contractual practices for travel chains defined in the Act on Transport Services (*Code of conduct for travel chains*)

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Lippu project report on contractual practices for travel chains defined in the Act on Transport Services		
Abstract		
<p>A key starting point of the Act on Transport Services is to enable new services. Its goal is that customers are able to acquire the services of different service providers from a single place, i.e. to acquire their travel chain from a single point of sale. This goal will be reached by obligating service providers under the Act on Transport Services to open up their sales interface to integrated mobility services offering travel chains. In the first phase of the Act on Transport Services, the obligation to open up sales interfaces applies to single basic-priced road and rail transport tickets and the reservation of taxi services.</p> <p>This report describes factors that service providers should take into account and that they should agree upon in order to offer travel chains and provide travellers with as good service experiences as possible, even in the case of incidents.</p> <p>This report and these recommendations were prepared by the authorities in 2017 in the Lippu project established by the Ministry of Transport and Communications. The project parties are the Finnish Communications Regulatory Authority (FICORA), the Finnish Transport Safety Agency (Trafi) and the Finnish Transport Agency. Other authorities were also heard in the preparation phase. The preparation phase was carried out together with service providers at working group meetings and personal meetings, and by requesting written comments from service providers.</p> <p>In terms of their legal application, codes of conduct for agreements and cooperation between service providers comprise official guidance and recommendations. Recommendations are not legally obligating; instead, legal obligations are defined in acts, decrees and regulations. This report is not an agreement template, but this report helps parties to prepare agreements.</p> <p>A legal background investigation regarding consumer protection, processing personal data and responsibilities between companies was conducted for this report. The results of the background investigation were taken into account in sections concerning consumer protection and data protection. The legal background investigation is published attached to this report. It is a Power-Point presentation available to different service providers for utilisation.</p> <p>The development of agreement practices will continue in the Lippu project in 2018, when the recommendations of this report can be specified and new factors can be identified.</p>		
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1 General

1.1 Scope of the code of conduct

This report concerns contractual matters related to opening up sales interfaces for tickets/travel authorisations as set out in the Act on Transport Services between transport services, transport service providers and new integrated mobility service providers (MaaS operators).

The purpose of regulations and agreements is to provide travellers with travel chains consisting of services of more than one service providers.

See Act on Transport Services (320/2017) [1], part III, chapter 2. The obligations set out in the act for providers of passenger services in road and rail transport, providers of brokering and dispatch services or companies being in charge of the ticket and payment system on their behalf will enter into force on 1 January 2018.

1.2 Preparation and maintenance of the code of conduct

The code of conduct will be prepared and modified by the authorities working in close cooperation with service providers.

The first version of the code of conduct will be published as a report in FICORA's publication series. The method of publication of the next version will be decided on during further development.

This report and these recommendations were prepared by the authorities in 2017 in the Lippu project established by the Ministry of Transport and Communications. The purpose of the Lippu project is to enable the provision of uninterrupted travel chains in accordance with the Act on Transport Services. The project parties are the Finnish Communications Regulatory Authority (FICORA), the Finnish Transport Safety Agency (Trafi) and the Finnish Transport Agency.

The preparation phase was carried out in cooperation with service providers operating in the sector. Network meetings and workshops were arranged for service providers. Their representatives were also met at personal meetings. Service providers have been able to comment on this report in writing.

A legal background investigation regarding consumer protection, processing personal data and responsibilities between companies was commissioned from Dittmar & Indrenius Attorneys Ltd for this report. The results of the background investigation were taken into account in sections concerning consumer protection and data protection. The legal background investigation is published attached to this report. It is a PowerPoint presentation available to different service providers for utilisation (APPENDIX 1. Legal investigation by Dittmar & Indrenius Attorneys Ltd).

Authorities are responsible for preparing any changes to the code of conduct. Service providers will be heard regarding any changes.

The development of agreement practices will continue in the Lippu project in 2018, when the recommendations of this report can be specified and new factors can be identified.

1.3 Legal obligations

Code of conduct for travel chains

- ✓ *are not* legally binding
- ✓ comprise official guidance and recommendations
- ✓ *do not* constitute an agreement template

In terms of their legal application, codes of conduct for agreements and co-operation between service providers comprise official guidance and recommendations. Recommendations are not legally obligating; instead, legal obligations are defined in acts, decrees and regulations. Furthermore, these recommendations do not constitute an agreement template, but help parties to prepare agreements.

1.4 Purpose of the code of conduct

The purpose of the code of conduct for travel chains is to act as a checklist and guide when preparing agreements on mobility services.

This report includes official guidance on obligations set out in the Act on Transport Services and other provisions. This report is a checklist of matters that providers of mobility services need to take into account or that should be taken into account when preparing agreements.

If possible, the code of conduct includes interpretations of supervisory authorities regarding the regulations they supervise that service providers need to follow in their operations.

In addition, the code of conduct includes recommendations for good practices in agreements and cooperation between service providers.

1.5 Official guidance and monitoring

The matters discussed in the code of conduct for travel chains are within the power of different authorities. The authorities worked in cooperation during the preparation phase. The authorities (only) provide guidance on matters within their power.

During the preparation phase, the Finnish Competition and Consumer Authority (consumer protection and competition), the Data Protection Ombudsman (processing personal data) and the Financial Supervisory Authority (regulation on payment services) were heard.

- *The Financial Supervisory Authority* supervises payment services and offers guidance on when the Payment Services Act concerns operations and when, for example, the matter concerns a limited network to which regulations on payment services do not apply.
- *The Finnish Competition and Consumer Authority (FCCA)* and *the Consumer Ombudsman* offer guidance and supervision in matters related to consumer protection legislation and regulation on package tours. Moreover, the FCCA and the Consumer Ombudsman, in collaboration with Trafi, supervise the implementation of EU regulations aimed at protecting passengers (e.g., Regulation on rail passengers' rights and obligations, Regulation on the rights of passengers in bus and coach transport).

- Furthermore, the FCCA supervises compliance with the Competition Act.
- *The Finnish Transport Agency* performs specific tasks defined in the Act on Transport Services, such as general interoperability (including background systems), the promotion of cooperation, special questions related to competent authorities, significant data interfaces and monitoring mobility services.
- *Trafi* is the supervisory authority of the Act on Transport Services. Trafi offers guidance on the obligation to open up sales interfaces and the application of roles defined in the act.
- *The Data Protection Ombudsman* supervises the processing of personal data.
- *FICORA* leads the Lippu project as assigned by the Ministry of Transport and Communications.

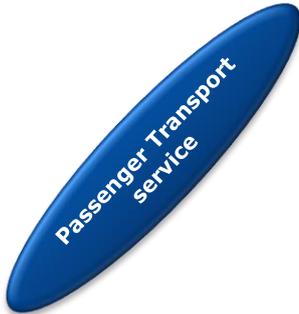
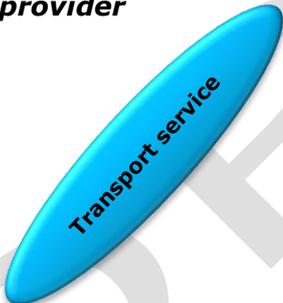
2 Definitions and roles in the light of regulations

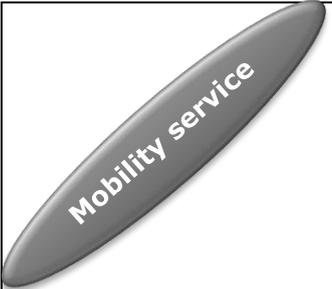
2.1 Definitions used in the act and this report

This section presents key definitions used in the Act on Transport Services and this report.

The Glossary of public transport terms [2], published by the Finnish Transport Agency, is currently being updated. The parties involved in drafting the Code of conduct for travel chains are following the progress of the update, and strive to adopt the renewed terminology after the glossary update has been completed.

Concept	Source and explanation	Notes
<i>Passenger transport service provider</i>	As defined in this report A provider of transport services that offers passenger transport services or a party that is fully responsible for arranging passenger transport services in their area or makes purchases to supplement transport services in the market. See transport service.	
<i>Comprehensive service provider, or comprehensive integrated mobility service</i>	As defined in this report An integrated mobility service provider, i.e., MaaS operator that, on the basis of an agreement, is responsible towards passengers for ensuring that transport in the travel chain or replacement transport is carried out.	The service promises arrival, even if there are incidents in transport services within the travel chain. This definition is related to responsibilities towards consumer passengers in situations where the travel chain fails for reasons attributable to transport

	See intermediary.	services.
Single ticket	See minimum product or minimum obligation.	
<p>Service for transporting passengers and goods (passenger transport service)</p> 	<p>As defined in the Act on Transport Services</p> <p><i>services for transporting passengers and goods" mean commercial transport of passengers and goods.</i></p> <p><i>commercial road transport services refers to the transport of passengers or goods on road for remuneration and for the purpose of gaining income</i></p>	<p>In this code of conduct, we refer to services for transporting passengers as " passenger transport services".</p> <p>The definition of the act applies to the transport of passengers and goods, while the code of conduct for travel chains only applies to companies that offer passenger transport services.</p> <p>Typically, operations involve requirements for transport licences and professional qualifications.</p> <p>Car rental does not comprise a transport service.</p> <p>Examples: taxi company, bus transport company, railway company.</p>
<p>Transport service provider</p> 	<p>As defined in the Act on Transport Services</p> <p><i>transport services mean any public or private service or combination of services related to transport that is offered for the general public or for private use</i></p>	<p>The definition of the act is broad.</p> <p>Services for transporting passengers and goods are a subcategory of transport services. Other forms of traffic services include vehicle rental and driver hire.</p> <p>A traffic service can be a scheduled or charter service.</p> <p>Transport services also include non-professional services.</p> <p>Examples: Helsinki Regional Transport Authority (HSL), car rental companies, car sharing providers, including authorities that offer transport services</p>
Mobility service provider	As defined in the Act on Transport Services	A general definition of the act, broadly include other

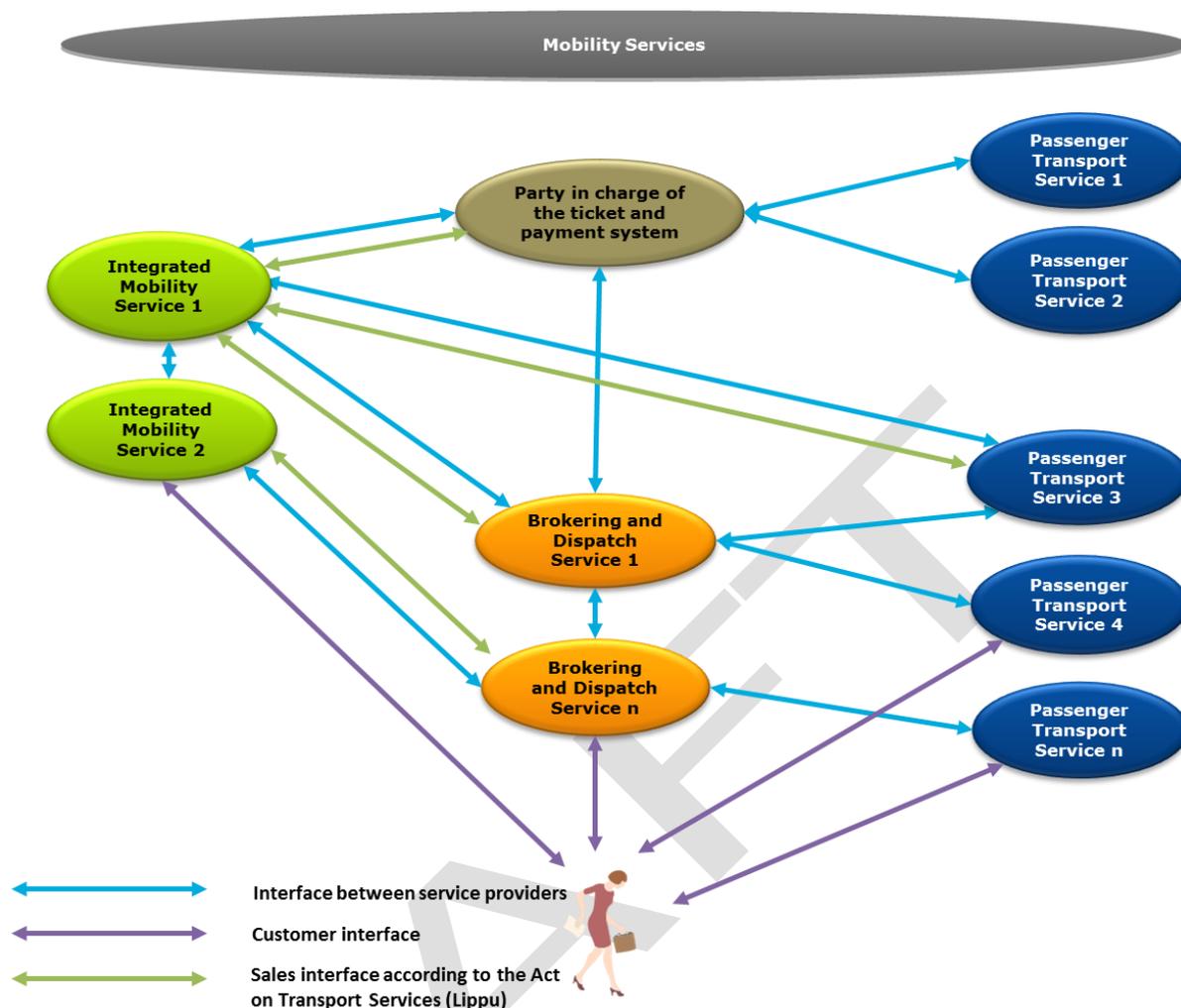
	<p><i>"Mobility service" means transport services and support services directly related to these, such as brokering and dispatch services, data services and parking services</i></p>	<p>definitions of the act and supporting services related to traffic services.</p> <p>Examples of mobility services: Matkahuolto, taxi centre, reittiopas.fi, matka.fi, google.com/transit, Q-park, reittiGPS, Whim, Tuup, Traffic Situation service of the Finnish Transport Agency</p>
<p>Mobility service network</p>	<p>As defined in this report</p> <p>"Mobility service network" refers to contractual relationships and cooperation between providers of <i>mobility services</i> in accordance with the Act on Transport Services (320/2017) that enable the provision of uninterrupted <i>travel chains</i> for passengers.</p>	<p><i>Mobility services</i> is a higher level concept defined in the Act on Transport Services. It largely covers different transport-related services defined in the act.</p> <p>In the first phase of the Act on Transport Services, regulations apply to road and rail traffic.</p> <p>The operating model of the network has not been explicitly defined in the Act on Transport Services.</p>
<p>Party in charge of the ticket and payment system</p>	<p>As defined in this report</p> <p>Transport-related parties that have a ticket and payment system and parties that offer a ticket and payment system to other parties</p>	<p>Examples: LMJ Oy and taxi centres</p>
<p>MaaS operator</p>	<p>As defined in this report</p> <p>See integrated mobility service provider.</p>	
	<p>In accordance with the Payment Services Act (290/2010, amendment pending), a service provider that</p> <p>collects and transmits payments between parties outside a limited network</p>	<p>Payment services are governed by the Payment Services Act. The provision of services is subject to a licence.</p> <p>Regulations do not apply to limited networks. According to the interpretation of the Financial Supervisory Authority, services for transporting passengers as a whole can be regarded as a limited network, whereas the combination of other mobility services can be re-</p>

		<p>garded as a payment service.</p> <p>For example, sealed card-based public transport ticket systems are not within the scope of the Payment Services Act.</p> <p>For example, regulations apply to card and mobile payments.</p> <p>Examples: banks and payment institutions and other service providers, such as MasterCard, Nets, Paytrail and PayPal.</p> <p>In addition to payment service providers, payments involve parties that offer terminal devices and software for card payments and that transmit payment transactions to service providers of payment recipients.</p> <p>These include Verifone/Point and Solinor.</p>
Travel chain	<p>As defined in this report</p> <p>A trip acquired from a MaaS operator with a single purchase to access the destination from the point of departure using different modes of transport.</p>	<p>In this phase, the code of conduct for travel chains applies to single tickets in road or rail traffic or the reservation of taxi services.</p> <p>The concept of a travel chain is used as a broader concept in the transport industry. It includes the coordination of transit connections and timetables of physical transport; however, the key perspective of this report is the sale of a travel authorisation at a single time.</p>
Sales interface	<p>As defined in this report</p> <p>An interface in a ticket and payment system for an integrated mobility service</p>	<p>The interface can be used to acquire at least a basic-priced single ticket or a taxi reservation.</p>
Minimum product (minimum obligation)	<p>As defined in this report</p> <ul style="list-style-type: none"> • <i>A ticket product for a standard-priced single trip</i> 	<p>In this report, this concept refers to ticket products or reservations in accordance with the <i>minimum obligation</i></p>

	<p><i>verified using a universal technology.</i></p> <ul style="list-style-type: none"> <i>A reservation of a single trip or transport service, the exact price of which is not known at the beginning of the service.</i> 	<p><i>tion of the Act on Transport Services.</i></p> <p>On the basis of the obligation to open up the sales interface, as defined in the Act on Transport Services, a sales interface must be opened up, through which at least a basic-priced single ticket product can be acquired or a reservation can be made for a transport service.</p>
<p>Brokering and dispatch service provider</p> 	<p>As defined in the Act on Transport Services</p> <p><i>brokering and dispatch services mean brokering and dispatch of transport services in return for remuneration, excluding a service where only the service provider's own transport services are brokered or dispatched</i></p>	<p>brokers and dispatches passenger transport services of other companies. In addition, it can broker and dispatch its own passenger transport services.</p> <p>This only applies to brokering and dispatching transport services using the transport services of a single passenger transport service provider per trip, otherwise to integrated mobility services.</p> <p>A brokering and dispatch service provider only brokering its own transport services (own transport services, own vehicles or services for own needs) is not regarded as brokering and dispatch service. Example: a taxi company that offers trips to its drivers.</p> <p>The definition of the act applies to brokering and dispatching passenger and goods transport services, whereas the code of conduct for travel chains only applies to mediating passenger transport services.</p> <p>A brokering and dispatch service provider charges compensation for mediating from the passenger or transport service provider. Advertisement-funded mediating is also regarded as a service offered</p>

		<p>against compensation.</p> <p>Examples: taxi centre, Uber, Matkahuolto</p>
<p>intermediary, or intermediary-like integrated mobility service</p>	<p>as defined in this report</p> <p>an integrated mobility service provider, i.e., a MaaS operator that offers travel chains to passengers so that it only brokers and dispatches agreements without guaranteeing the completion of transport services</p> <p>See comprehensive service provider.</p>	<p>This definition is related to responsibilities towards consumer-passengers in situations where the travel chain fails for reasons attributable to transport services.</p>
<p>Integrated mobility service provider</p> 	<p>as defined in the Act on Transport Services</p> <p><i>"integrated mobility services mean formation of travel chains and other service packages in return for remuneration by combining the mobility services offered by different service providers."</i></p> <p>In this report, integrated mobility service providers are also referred to as MaaS operators.</p>	<p>The definition of the act covers all mobility services, whereas the code of conduct for travel chains only applies to the generation of travel chains based on single tickets for road or rail traffic or the reservation of taxi services.</p> <p>Offers a service to generate travel chains against compensation by combining tickets or taxi reservations of different companies.</p> <p>Can also collect a charge from the passenger or receive compensation through other means. Advertisement-funded operations are also considered to take place against compensation.</p> <p>Examples: Tuup, Whim and services of rail or bus companies that offer ticket combinations or travel chains of different modes of transport.</p>

2.2 Examples of interfaces between different service providers



The arrows represent possible technical interfaces between service providers and agreements between a MaaS operator and different service providers.

Passenger transport service providers, brokering and dispatch service providers and parties in charge of the ticket and payment system on their behalf must open up the sales interface of their ticket and payment system. It is sufficient that one service provider opens up the interface of a ticket product.

Passengers make an agreement with a MaaS operator on the acquisition of tickets and reservations (in the intermediary model) and possibly on travel or travel chain/transport (in the comprehensive service model). If the MaaS operator only acts as an intermediary, passengers enter into an agreement on transport/travel with the brokering and dispatch service and/or passenger transport services.

2.2.1 Passenger transport service provider



Responsibilities in the travel chain

- Responsible for ensuring that the sales interface is open

- Responsible for transporting users in their vehicles as agreed upon in the travel identifier
- Responsible for ensuring that the travel authorisation is authenticated using the travel identifier sent to the user before travel

2.2.2 Brokering and dispatch service provider



**Brokering and dispatch
service**

Responsibilities in the travel chain

- Responsible for opening up the sales interface
- Responsible in brokered transportation for ensuring that all services reserved/sold to users are included in the travel chain
- Responsible for ensuring that the travel authorisation is authenticated in the specific passenger transport service.

Other responsibilities

- Responsible for ensuring (starting from 1 July 2018) that the passenger transport service provider has a valid transport licence.

2.2.3 Integrated mobility service provider



Integrated mobility service

Responsibilities in the travel chain

- Responsible for ensuring that all services reserved/sold to users are included in the travel chain
- Responsible for ensuring that passengers obtain all travel identifiers required in the travel chain and that they are in compliance with the specifications issued by the transport service so that they can be used to authenticate the travel authorisation.
- Any responsibility for changing the travel chain in the case of an incident depends on what the integrated mobility service promises to passengers in the terms and conditions of its service and in the agreement.

2.3 Phases in providing a travel chain

When preparing the code of conduct for travel chains and the Lippu interface specifications, the aim was to identify different phases in the lifecycle of travel chains in great detail. The phases and functions identified are presented here as a checklist. It can be used by service providers in agreements and other cooperation.

Appendix 4 presents a figure of data flows in different phases of the travel chain (APPENDIX 4. Figure: data flows in the travel chain). Different phases

include transmitted attributes as defined in the Lippu interface specifications and other matters to be taken into account, for example, regarding consumer protection and the processing of personal data.

Phase description in Appendix 4	Phase described in general
<i>sales and marketing</i>	
<i>product generation</i> <i>preliminary reservation</i>	integrated mobility service generates a travel chain for the passenger
<i>product search</i>	product query
<i>availability query</i>	capacity query
<i>product sale</i> <i>reservation and travel identifier</i>	travel reservation and ticket delivery
<i>validation and transport</i>	validation (authentication of the travel authorisation)
<i>clearing</i>	payment and clearing
<i>error information</i> <i>cancellation/change</i> <i>change in reservation</i>	re-routing, errors
<i>compensation</i>	subsequent compensation/complaint

3 Contractual obligations in the mobility service network

3.1 Regulations

Act on Transport Services, part III, chapter 2

Section 2

Interoperability of ticket and payment systems

Providers of passenger transport services in road or rail traffic, intermediary service providers or parties in charge of the ticket and payment system on their behalf must provide mobility service providers and MaaS operators access to the sales interface of their ticket and payment system, through which it is possible, without any terms and conditions limiting its use:

1) purchase a ticket product at a basic price that, at minimum, entitles the passenger to a single trip; the travel right based on this ticket shall be easily verifiable using generally applied technology; or

2) reserve a single trip or a transportation, the exact price of which is unknown when the service begins or which for some other reason will be paid by mutual agreement after the service has been provided..

A service provider who only provides passenger transport services other than those procured by the competent authority referred to in Part IV, chapter 1, sections 4 and 5 of this Act, the Act on Public Procurement and Concession Contracts (1397/2016), hereinafter re-

ferred to as the Public Procurement Act, or the Act on public contracts and concessions of entities operating in the water, energy, transport and postal services sectors (1398/2016), may deviate from the requirement in subsection 1 if requirement is not technically feasible or reasonable due to the company's small size or operating area.

A service provider obligated to open a ticket and payment system interface pursuant to subsection 1 and a mobility and integrated mobility services provider that utilises the interface shall work in co-operation to facilitate the necessary practical arrangements.

Section 4 **General requirements for opening up interfaces**

Access to data and information systems offered through the open interfaces referred to in sections 1 and 2 above and any support services, terms and conditions of use, software, licences and other services that may be required to access them shall be offered on fair, reasonable and non-discriminatory terms.

Service providers obliged to open interfaces referred to in sections 1 and 2 above shall ensure that the interface can be opened without compromising the service's information security or privacy.

3.2 Contracting parties obligated and entitled to open up the interface

Obligated parties

On the basis of the Act on Transport Services, the following are obligated to open up their interface and, therefore, to enter into an agreement:

- ✓ passenger transport service providers
- ✓ brokering and dispatch services
- ✓ parties in charge of the ticket and payment system on behalf of the aforementioned

According to the Act on Transport Services, the obligation to open up an interface does not apply to passenger transport service providers if it is not technically purposeful or reasonable due to the small size or operating area of the company. In other words, criteria for appropriateness and reasonableness must be met. Competent authorities must always open up their interface.

In practice, a single service provider can have several roles defined in the Act on Transport Services. In this case, it may be necessary to assess who is bound by this obligation.

Interpretations of different situations:

Generally, it is sufficient that an interface is opened through a single sales channel, even though tickets can be sold or reservations can be made in several places.

For example in the taxi industry, this obligation mainly applies to service providers that use a data system-based brokering and dispatch system and who provide an opportunity to reserve a ride in advance. In practice, this requirement applies to taxi centres. Therefore, this requirement does not apply to small taxi companies that accept reservations by telephone or via email.

Entitled parties

On the basis of the Act of Transport Services, the following are entitled to access the interface and information and, therefore, enter into an agreement:

- ✓ mobility services
- ✓ integrated mobility services

The code of conduct for travel chains focuses on contractual questions related integrated mobility services when they acquire tickets or transport service reservations through sales interfaces in order to generate travel chains for passengers.

3.3 Content of the minimum obligation (minimum product)

On the basis of the obligation to open up the sales interface, as defined in the Act on Transport Services, a sales interface must be opened up, through which at least a basic-priced single ticket product can be acquired or a reservation can be made for a transport service.

Interpretation of single tickets: Basically, a service provider obligated to open up the sales interface of its ticket and payment system can independently define the basic-priced single ticket that can be acquired through the interface

The following factors must be taken into account:

- The ticket must be available to all, i.e. it cannot be directed at a single target group, such as pensioners or municipal residents.
- The starting point is that the service provider offers its current standard-priced ticket product through the interface. The price of tickets sold through the interface cannot be higher than tickets sold through other channels. Dynamic pricing of single tickets is permitted.
- The minimum obligation does not prevent service providers from selling standard price single tickets to their own end users at a lower rate than to the integrated mobility service on a temporary basis, for example as a campaign price.

3.4 Products other than those within the scope of the minimum obligation

When contracting parties agree upon products other than the minimum products required in the Act on Transport Services, such as season tickets, discount tickets, specific wholesale terms and other agreement terms and conditions, these products and terms are not defined specifically in the Act on Transport Services but in other legislation.

3.5 Obligation to conclude contracts, obligation to negotiate and refusal to conclude an contract

The freedom of agreement is a ground rule in business. However, the provisions of the Act on Transport Services restrict the freedom of agreement of transport service providers and MaaS operators. The necessity to enter

into an agreement only applies to the minimum products defined in the Act on Transport Services.

Restricting the freedom of agreement

In the legal sense, the freedom of agreement, i.e. the freedom to select any services offered and contracting partners, is a ground rule in business. The freedom of agreement can be restricted by law.

The provisions of the Act on Transport Services restrict the freedom of agreement of transport service providers and MaaS operators so that they need to provide service providers defined in the act with access to defined information and data systems, as well as any support services, terms of use, software, licences and other services required to enable such access by using fair, reasonable and non-discriminating terms and conditions.

The obligation to conclude contracts only applies to the minimum products defined in the Act on Transport Services.

Obligation to negotiate and refusal to conclude a contract

The obligation to conclude contracts includes a provision on sincere negotiations.

This means that contracting parties must respond to any requests for offer or queries within a reasonable time and take any relevant matters raised by the counterparty into account.

Agreement terms will be discussed in more detail below. However, it can be stated in general that, taking the obligation to open up interfaces into account as defined in the Act on Transport Services, there must be a well-justified reason for any refusal from concluding a contract or cooperation regarding products defined in the act. Such a reason may only be related to the following:

- A contracting party cannot be reliably identified (registered company/association, business ID), a contracting party has been filed bankrupt or has a business ban, or a contracting party is bound by statutory restrictions or restrictions included in international contractual obligations (such as sanctions imposed).
- The intended purpose of use of an interface does not relate to integrated mobility services as defined in the act.
- An integrated mobility service does not fulfil reasonable minimum requirements set for information security and data protection.
- Factors related to capital adequacy

If risks associated with a contracting party can be controlled by using agreement terms that are reasonable considering the risks, these should apply, instead of refusing to conclude an agreement. These terms include collateral or any temporary interruption of the service.

If terms are negotiated which are not covered by the minimum obligation, a contracting party has the right to refuse to conclude the contract if mutu-

al agreement cannot be reached and the other negotiating party refuses to accept the proposed reasonable terms of contract.

3.6 Reasonable terms of contract

Permitted terms of contract related to the minimum product can be divided into

- ✓ terms of use
- ✓ other necessary terms

Any terms and conditions restricting the use of an interface are not permitted.

3.6.1 Key obligations of the Act on Transport Services

On the basis of the obligation to open up a sales interface defined in the Act on Transport Services, it must be possible to acquire or reserve at least a standard-priced single ticket product or transport service (taxi reservation) through the interface without any terms and conditions restricting its use.

The Act on Transport Services requires that the interface can be opened up without endangering data protection or privacy protection in the service.

On the basis of the Act on Transport Services, the use of the sales interface may include terms of use that are required to provide access. These must be fair, reasonable and non-discriminating (part III, chapter 2, section 4). According to the justification of the act, such terms of use typically apply to data protection, logging in or authentication.

In addition, the act (part III, chapter 2, section 2(3)) defines an obligation to cooperate, according to which the service provider obligated to open up its interface and service providers that use the interface must work together in order to enable the practical arrangements required. In this report, any agreement terms generated on the basis of this obligation are referred to as *necessary agreement terms*. According to the justification of the act, such practical factors include the question how the travel authorisation can be authenticated in practice.

The basic obligation to open up the interface defined in the Act on Transport Services can be interpreted to mean that a MaaS operator must be able to acquire a single ticket or reservation through the interface, without the service provider obligated to open up the interface setting any terms other than those based on the requirements described above.

Any terms and conditions restricting the use of the interface are not permitted. According to the report of the Transport and Communications Committee [3], terms and conditions restricting the use of the interface restrict the method or purpose of use for which the interface and the ticket product or single trip acquired through the interface can be used. For example, a service provider opening up its interface cannot have the power to decide what types of travel chains or service packages an acquired ticket product is used for.

3.6.2 Regulation on agreement terms in the Act on Transport Services and other legislation

The following main principles apply to regulation on agreement terms:

1. Terms of use of the sales interface regarding the minimum product are subject to the fairness, reasonability and non-discrimination requirement of the Act on Transport Services (part III, chapter 2, section 4(1)).
 - Interface information security, including sign-on and identification
2. Agreeing upon the matters required to generate and offer a travel chain consisting of minimum products is within the scope of the cooperation obligation set out in the Act on Transport Services (part III, chapter 2, section 2(3)).
 - The obligation to cooperate involves an obligation to negotiate over contracts and other practical arrangements.
 - For example, it is necessary that, for example, tickets or other travel identifiers sold by a MaaS operator as part of minimum products can be authenticated in the vehicle.
 - Furthermore, it is necessary, in order to generate and offer a travel chain, to agree upon how different parties to the travel chain fulfil their rights and obligations set out in imperative legal provisions. These are defined, for example, in the legislation on consumer protection and personal data and in special regulations set for each mode of transport.
 - In addition to these, this report also presents other matters that need to be agreed upon in order to enable travel chains.
 - These necessary terms cannot exceed obligations set out in the legislation.
 - Furthermore, these terms cannot be unreasonable so as to prevent the obligation to open up the interface from being fulfilled in practice.
 - It is recommended that these terms are also reasonable in proportion to the goals of the contract and to how the contracting parties can have an impact on factors related to the provision of a travel chain and, for example, on the generation of any losses.
3. No terms other than those concerning minimum products are defined in the Act on Transport Services.
 - Other products include season tickets, discount tickets and purchase on credit. Deliveries and payment terms in accordance with regular payment and invoicing practices between companies cannot be regarded as purchases on credit (as intended in Government proposal 144/2017 [4] or in decision 20/2017 of the Ministry of Transport and Communications).

- For example, products covered by any special wholesale-type terms related to single tickets and taxi reservations are included in this category.
 - Agreements are subject to general principles of contract law and the general legislation.
 - It is recommended that these terms are also reasonable in proportion to the goals of the contract and to how the contracting parties can have an impact on factors related to the provision of a travel chain and, for example, on the generation of any losses.
4. Specific compelling acts apply to all of the aforementioned situations, unless otherwise specifically defined.
- Compelling provisions on personal data, consumer protection and mode of transport apply to contracting parties, regardless of whether the travel chain consists of minimum products or other products.
 - With regard to the aforementioned, the protection of personal data is included in privacy protection as is also required in the Act on Transport Services.
 - For example, any terms regarding the payment of compensation for loss between service providers must be based on the general legislation, such as the Competition Act, the Unfair Business Practices Act and the Contracts Act.

3.7 Competition legislation

The general competition legislation must also be taken into account. The Competition Act (948/2011) [5] sets general conditions for the freedom of agreement.

According to section 5 of the Competition Act, *all agreements between undertakings, decisions by associations of undertakings, and concerted practices by undertakings which have as their object the significant prevention, restriction or distortion of competition or which result in a significant prevention, restriction or distortion of competition shall be prohibited.*

If a company has a dominant market position, unfoundedly discriminating procedures are also prohibited. For example, any refusal to provide access to an interface may be against the Competition Act if the service provider has a dominant market position. In the case of the Act on Transport Services, it should be noted that special provisions already obligate service providers to open up their sales interface in some respects.

Considering the Competition Act, attention should be paid to any impact of contractual cooperation between a MaaS operator and transport services on the markets of MaaS operators.

4 Interface and data attributes

4.1 Machine-readable interface

Opening up access to the sales interface has the following impact on the technical implementation:

- The interface must be automatically machine-readable in real time.
- The file format should be generally used and usable without any commercial software.
- Data must be in a structural format and its processing must be possible without any human interpretations (CSV, XML, JSON or similar standards).

4.2 Relationship between significant information and information in the sales interface

Act on Transport Services, part III, chapter 2 – Interoperability of information and data systems

Section 1 Significant information about a mobility service

Regardless of the mode of transport, a provider of passenger mobility services shall ensure that essential, up-to-date data on its services is freely available from an information system (open interface) in a standard, easy to edit, and computer-readable format. At minimum, this essential data shall include information on routes, stops, timetables, prices, availability and accessibility.

The Finnish Transport Safety Agency shall be notified of the web addresses of an interface referred to in subsection 1 above and web addresses of any additional information needed to use the interface as well as any address updates before operation is initiated or, with regard to updates, as soon as a new address is known.

The Finnish Transport Agency shall offer a technical service through which the data referred to in subsection 1 may alternatively be provided.

More detailed provisions on essential data referred to in subsection 1 and the requirements for keeping this information up to date, as well as on technical interoperability may be laid down by a government decree.

Section 2 Interoperability of ticket and payment systems

Providers of road and rail passenger transport services, providers of brokering and dispatch services, or actors managing a ticket or payment system on behalf of these shall give mobility service providers and providers of integrated mobility services access to the sales interface of their ticket and payment systems, through which it is possible to:

- 1) purchase a ticket product at a basic price that, at minimum, entitles the passenger to a single trip; the travel right based on this ticket shall be easily verifiable using generally applied technology; or
- 2) reserve a single trip or a transportation, the exact price of which is unknown when the service begins or which for some other reason will be paid by mutual agreement after the service has been provided.

[...]

The purpose of the interface of significant information about mobility services as referred to in part III, chapter 2, section 1 of the Act on Transport Services is to enable the production of passenger information, such as route guides. Mandatory and optional information offered in an open interface is defined in Government Decree 643/2017 [6]. This interface must be reported to the Finnish Transport Agency for publication in the NAP database.

The purpose of the sales interface for the interoperability of ticket and payment systems as referred to in part III, chapter 2, section 2 of the Act on Transport Services is to enable the productisation and sale of travel chains. Information about the sales interface must be sent to the Finnish Transport Agency for publication in the NAP database on the basis of the EU regulation on EU-wide multimodal travel information [7].

4.3 Information to be offered in the sales interface

Data content that enables the provision and authentication of ticket products must be available through interfaces.

The requirement for opening up the sales interface defined in the Act on Transport Services applies to the following products:

- A ticket product for a standard-priced single trip verified using a universal technology.
- A reservation of a single trip or transport service, the exact price of which is not known at the beginning of the service.

Parties can also agree upon the provision of other products through the sales interface.

4.4 Lippu interface specification as an example of a sales interface

A recommendation for an interface specification and an example implementation of a sales interface was prepared in the Lippu project [8], defining technically mandatory and optional attributes. However, the Lippu interface specification is not exhaustive.

The use of the Lippu interface specification is not mandatory but, if the implementation of the sales interface includes similar information, the interface can be interpreted to fulfil legal requirements regarding data content.

Contracting parties can have several different sales interfaces for different business needs.

Recommendation

Contracting parties are recommended to accept the use of an interface based on the Lippu interface specification, especially if either party does not have an interface that meets the requirements set.

Examples of attributes

Necessary attributes include:

- Points of departure and arrival (e.g. stop, coordinates, address)

- Method of authentication of the travel authorisation (e.g. QR code, PIN code, image)
- Agreement identifier to which an integrated mobility service purchase/reservation is related in the sales interface
- Validity of a preliminary reservation
- Validity of a travel authorisation (ticket, taxi reservation)
- Whether or not information about accessibility is available

Optional attributes include:

- Description of additional services (e.g. Wi-Fi, catering services or baby seat) or a pick-up point
- Detailed information about the accessibility of passenger transport services
- Contact details of the passenger (e.g. telephone number, email, application ID)

5 Information security

5.1 Provisions

Act on Transport Services, part III, chapter 2

Section 4

General requirements related to the opening of interfaces

Access to data and information systems offered through the open interfaces referred to in sections 1 and 2 above and any support services, terms and conditions of use, software, licences and other services that may be required to access them shall be offered on fair, reasonable and non-discriminatory terms.

Service providers obliged to open interfaces referred to in sections 1 and 2 above shall ensure that the interface can be opened without compromising the service's information security or privacy.

5.2 Reasonable information security requirements

To ensure the information security of the interface and service, good information security practices must be followed.

Any procedures must be proportional to threats and risks.

5.2.1 Good information security practices

The maintenance of information security means the technical and organisational activities that are carried out in order to ensure the integrity and usability of network and data systems and the confidentiality of information.

Contracting parties may require that the other party applies good information security practices *in proportion to risks* to data connections related to the sales interface of the ticket and payment system and to its own systems that have an impact on the data connections of the sales interface or the information security of data obtained through it.

Good information security practices cover the management of general information security, telecommunication, information system and operational security, as well as physical security.

These consist of the following parts:

- 1) telecommunication security
 - a) structural network security
 - b) zoning of the communications network
 - c) filtering rules according to the principle of least privilege
 - d) administration of the entire life cycle of filtering and control systems
 - e) control connections
- 2) information system security
 - a) access rights control
 - b) authentication of system users
 - c) hardening of systems
 - d) malware protection
 - e) tracing security events
 - f) security incident observation capability and recovery
 - g) internationally or nationally recommended encryption solutions
- 3) operational security
 - a) change management
 - b) processing environment for secret material
 - c) remote access and management
 - d) management of software vulnerabilities
 - e) backup copies
- 4) physical security
 - a) physical protection and access control in facilities of the operator
 - b) physical protection and access control of service providers used

5.2.2 Procedures in proportion to risks

The starting point of the information security practices required from both parties is the use of threat modelling and risk evaluations. These are based, for example, on the amount of personal data and payment instrument data to be protected and financial risks, as well as financial losses or reputation risks if the service is not available due to a denial of service.

Contracting parties may require that the other contracting party sets its technical and organisation procedures to maintain information security in correct proportion to the severity and likelihood of threats, costs arising from procedures and available technical abilities to prevent threats.

When analysing the severity of a threat, it is necessary to consider at least the nature of data being protected (e.g. requirements for personal data processing or certificate key management), the criticality of the function being protected for the integrity of the system and the amount of any personal data and financial losses if the threat is realised. When analysing the likelihood of a threat, it is necessary to consider at least the current

knowledge of information security threats related to online services and the platform infrastructure. It is recommended that the threat analysis be based on a frame of reference in accordance with a general standard.

Information security requirements for processing personal data are defined in the Personal Data Act, and they are supervised by the Data Protection Ombudsman. Therefore, guidelines on information security in processing personal data can be issued by the Data Protection Ombudsman or the Article 29 Data Protection Working Party (WP29) at an EU level.

5.2.3 Information security elements and recommendations in the Lippu interface specification

In conjunction with the Lippu interface specification, a recommendation for a secure implementation of an interface was prepared during the Lippu project (APPENDIX 2. LIPPU-API: Security Considerations). The recommendation is based on general good practices and sources, as well as a threat analysis.

In the Lippu interface specification, the maintenance of information security is supported by attributes that are associated with the authentication of contracting parties in the interface.

- Attribute: Technical authentication of parties (computers)
- Attribute: Authentication by right
 - Product or party identifier
 - Different rights to content in accordance with agreements and product portfolios
 - Viewing or reservation rights

Contracting parties can agree upon the reliable replacement and management of certificates used to authenticate the parties or their identification data. The authorities do not offer any centralised management of certificates for the mobility service network. Contracting parties must apply good information security practices to management. Furthermore, it is recommended that certificates be granted for three years at a time.

5.3 Verifying the information security of contracting parties

Contracting parties can require from the other party that they agree upon a procedure, with which they can verify that their information security levels are maintained sufficiently.

A recommended and reasonable procedure is to define thorough requirements in the agreement and perform a technical test for interfaces open towards the Internet.

Possible procedures include:

- Information security requirements are defined and their fulfilment is documented in a written agreement.
- A technical test is performed for all network interfaces of the parties' systems open towards the Internet by an independent evaluator, or by the concerned party itself if it can show evidence of the tester's professional expertise. Any interfaces opened through subcontractors

must be taken into account in the test. The other contracting party must be notified of the testing results.

- See APPENDIX 2. LIPPU-API: Security Considerations for selecting suitable self-testing tools and methods.
- An independent audit of the information security of the contracting party's entire system must be conducted (including network interface testing). If the threat level is high, a standard (e.g. ISO 27001) certification of information security is required.
- Contracting parties have the right to audit the information security of the other party's system.

A recommended and reasonable procedure is to at least define thorough requirements in the agreement and perform a technical test for interfaces open towards the Internet.

Simply for the sake of opening up a sales interface, it is not reasonable to demand an independent audit or certification of the entire system. If a contracting party conducts an audit, the protection of trade and professional secrets and personal data needs to be taken into account. Procedures heavier than these can be used if they are otherwise used by the parties for business reasons.

5.4 Matters to be agreed upon

This section offers a checklist of matters related to information security that should be agreed upon.

Contracting parties should demand at least the following from one another:

- TLS authentication of the network interface
 - If possible both parties to network traffic should be authenticated using certificates (client and server certificates) exchange before the start of operations.
- Appointing a contact person for incidents
 - Both parties should appoint a contact person whom the other contracting party can contact in the case of a possible information security problem.
- Evidence that information security in the application used to carry out the service and in the application platform has been verified by means sufficient in proportion to risks This can include:
 - An application penetration test report or a similar document that indicates that the contracting party has tested the information security of its application or commissioned such a test
 - Approvals or information security certifications of the service provider (e.g. cloud service provider) of the application's server platform
- Log monitoring and the ability to detect deviations

- The ability to detect and produce triggers at least regarding deviations in typical transaction quantities or corresponding estimated threshold values

The aforementioned should always be easily available so that the fulfilment of obligations can be verified as easily as possible.

In addition, contracting parties should agree upon at least the following:

- Exchange and management of certificates
- Procedure to ensure the information security of contracting parties
- Procedure regarding system, interface and requirement changes
 - Giving information to contracting parties in good time
- Information security in the storage of data
 - Classification of data and access rights
 - Encryption and protection of data in accordance with a mutual agreement
 - Logs for processed data where applicable
 - Data processing and transfer of data from the system can be traced down to the person who performed the action
- Information security in the transfer of data
 - System zones – sufficient separation of the interface and background systems
 - Authentication of parties: certificates, the interface can only be accessed from pre-defined IP addresses
 - Data transfer: protocol requirements, encryption
- Handling incidents in the interface or system
 - Observation ability
 - Giving information to contracting parties and procedure regarding deviations in information security
 - Cooperation to the investigation of incidents
 - Repairs
 - Closing the interface or its part as a temporary security measure, if necessary

6 Usability and quality

6.1 Usability of sales interfaces

The contracting parties should agree upon the availability and capacity of the sales interface (SLA).

The Act on Transport Services does not define any quality or availability requirements for a transport service or sales interface. However, it requires that access and reasonable and non-discriminating terms of use are offered. According to the act, contracting parties must cooperate in order to enable interoperability by means of practical arrangements.

The contracting parties should agree upon the availability and capacity of the sales interface (SLA). With regard to authenticating the MaaS operator

and tickets of contracting parties, the availability of a sales interface and any interfaces of a ticket and payment system separate from the sales interface is highly important.

The contracting parties should agree that, when planning and implementing any maintenance work and modifications, they take the impact on the other contracting party and, if required, other parties to the mobility service network into account. The contracting parties should also agree that they perform any maintenance work and modifications in such a way and at such a time that the service break is as short as possible and has a minimum impact.

6.2 Necessary attributes/matters to be agreed upon regarding the sales interface

Contracting parties should agree upon the technical implementation of the interface and the information to be transmitted so that there is sufficient time for the reservation process and that tickets or other identifiers delivered to passengers can be properly authenticated before and during travel.

A few supporting factors were identified during the preparation of this code of conduct for travel chains:

- advance reservations without any purchasing commitment (soft booking)
 - agreement on how many reservations can be made and for how long
 - the timeframe of preliminary reservations must be defined in the interface so that tickets can, in practice, be purchased/reserved
 - the number of reservations can be controlled through access rights management
- sufficient information about ticket formats for a successful validation process
 - agreement on ticket types with which the travel authorisation can be verified (e.g. QR code, image, PDF, text, NFC, Bluetooth)

6.3 Quality of the travel chain

Factors that have an impact on the functionality and reliability of the travel chain provided for passengers by the MaaS operator need to be taken into account in agreements, where possible.

On the basis of information obtained from service providers during the preparation phase, there are not many factors of this type. However, it is recommended that they be offered in the interface, *if there are any*.

These factors offer help, for example, in rerouting and other customer service in the case of incidents.

Factors related to travel chain planning and reliability include:

- information about the transit time or conditions or routes between transport services
- how quickly information about a ticket sold or a reservation or activation made is updated technically so that the ticket or identifier can be authenticated in the vehicle
- any travel-related modifications or incidents that can be transmitted, and the related transmission schedule

7 Communicating information security incidents, failures, maintenance breaks and modifications in the interface and system within a mobility service network

7.1 Provisions

Act on Transport Services, part III, chapter 2

Section 2
Interoperability of ticket and payment systems

Providers of road and rail passenger transport services, providers of brokering and dispatch services, or actors managing a ticket or payment system on behalf of these shall give mobility service providers and providers of integrated mobility services access to the sales interface of their ticket and payment systems, through which it is possible to, without any terms and conditions limiting its use:

[...]

[...]

A service provider obligated to open a ticket and payment system interface pursuant to subsection 1 and a mobility and integrated mobility services provider that utilises the interface shall work in co-operation to facilitate the necessary practical arrangements.

Section 4
General requirements related to the opening of interfaces

Access to data and information systems offered through the open interfaces referred to in sections 1 and 2 above and any support services, terms and conditions of use, software, licences and other services that may be required to access them shall be offered on fair, reasonable and non-discriminatory terms.

Service providers obliged to open interfaces referred to in sections 1 and 2 above shall ensure that the interface can be opened without compromising the service's information security or privacy.

The exchange of information between service providers in the travel chain is discussed in this section.

In addition, it should be noted that the legislation defines obligations for service providers to disclose information to the authorities and/or customers in the case of disturbances. These deal with, for example, special regulations on different modes of transport and, in general, in future information security violations regarding personal data.

7.2 Exchange of information related to functionality incidents

Contracting parties are recommended to agree upon how any expected or unexpected maintenance breaks or incidents in the interface or services connected to it are communicated to the other contracting party.

The need for the exchange of information between contracting parties applies to failures and maintenance breaks affecting the operation of the service, and modifications potentially causing a break or a disturbance.

When defining the notification threshold, any impact on services of the other party must be taken into account. Any failures in operation must be communicated at least when they affect the services of other contracting parties.

It is recommended for contracting parties to agree on advance notifications of maintenance breaks or to set a predefined schedule for such breaks. It is also recommended that notifications of any modifications are agreed upon in a similar manner to maintenance breaks, depending on the associated risk of a potential break or disturbance or unexpected impact on other parties. Maintenance and modifications are typically likely to cause breaks.

7.3 Exchange of information about information security threats and incidents

The party that opens up its interface must ensure that the interface is opened up without putting the service's data or privacy protection at risk. Any endangerment of the confidentiality or integrity of personal data can also be regarded as an information security violation. Information security was discussed above.

Contracting parties are also recommended to cooperate in order to ensure information security and to agree upon the exchange of information about information security threats and incidents.

The contracting parties should agree on communicating information security threats and incidents to allow other mobility service network operators to anticipate such situations and take the necessary preparatory or corrective action.

For example, the threshold for communicating information security threats, such as software vulnerabilities, ongoing phishing campaigns or DoS attacks, should be fairly low to allow other contracting parties or mobility service network operators to anticipate the situation.

7.4 Communication practices

Contracting parties should agree upon communication procedures, such as contact persons, communication channels and notification periods. The level of information security in the communication channels should be high in proportion to the information being transmitted.

The contracting parties are recommended to communicate any threats and incidents to each other as soon as they have identified the threat or incident or become aware of it. Maintenance breaks should be communicated well before they take place. The notification periods should be proportional to the nature, severity, extent and impact of the problem.

7.5 Confidentiality of incident, modification and event information

Contracting parties are not entitled to disclose any confidential information they have obtained on the basis of an agreement to third parties.

The contracting parties can agree upon communicating any incidents to third parties or the public on behalf of each other.

Mutual secrecy of the contracting parties must not adversely affect consumers' right to obtain information about who they should turn to in order to invoke their legal rights.

7.6 Cooperation to investigate any errors related to the interface.

Contracting parties must investigate any errors in order to repair and prevent them.

The investigation procedure regarding urgent information security incidents or failures is different from the ex post investigation of errors or misuse. The contracting parties should agree at least upon contact details in investigating errors or misuse, if the details are different from those used in urgent situations.

8 Processing personal data (data protection)

8.1 Provisions

Act on Transport Services, part III, chapter 2

Section 4

General requirements related to the opening of interfaces

Access to data and information systems offered through the open interfaces referred to in sections 1 and 2 above and any support services, terms and conditions of use, software, licences and other services that may be required to access them shall be offered on fair, reasonable and non-discriminatory terms.

Service providers obliged to open interfaces referred to in sections 1 and 2 above shall ensure that the interface can be opened without compromising the service's information security or privacy.

Section 4 of the Act on Transport Services obligates service providers to open up their interfaces without endangering data protection or privacy protection.

This section concerning the processing of personal data has been prepared from the viewpoint of the application of the General Data Protection Regulation using the concepts and processing principles defined therein.

In Finland, the Personal Data Act (523/1999) defines the processing of personal data in general. The Personal Data Act will be replaced by the EU General Data Protection Regulation (EU) 2016/679 ("GDPR") [9], starting from 25 May 2018. The legislation on the protection of personal data applies whenever personal data is processed.

In irregular cases, it may be possible that a party to the mobility service network does not process personal data in the travel chain. If data is anon-

ymous or if it cannot be connected to a natural person, either directly or indirectly, such data remains outside the scope of the GDPR.

Data is anonymous if personal data is irrevocably converted into a format so that the data subject cannot be identified by any party from the data, either directly or indirectly. In its statement (5/2014) regarding data anonymisation [10], WP29 consisting of representatives data protection authorities of each EU member state defined that data is anonymised by processing personal data in a way that the identification of the data subject is prevented irrevocably. (See also Government Bill 145/2017, 2.1.1.9 Anonymisation of personal data[11].)

8.2 The concept of personal data, and personal data in the mobility service network

The definition of personal data is very broad. When travel chain services are offered to passengers, personal data is usually processed.

It should be noted that, even if data is pseudonymised, it is still regarded as personal data.

According to article 4(1) of the GDPR, "personal data" refers to any information relating to an identified or identifiable natural person. An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier, such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person.

The definition of personal data is very broad. When travel chain services are offered to passengers, personal data is usually processed. Such data includes contact details and credit card data processed when placing an order. Personal data also includes the information required to authenticate a travel authorisation. It should be noted that, even if data is pseudonymised, it is still regarded as personal data. Even if a single party to the travel chain cannot identify the identity of a passenger, it is regarded as sufficient if a party can identify a person by combining different pieces of information. Therefore, a travel identifier that does not include a passenger's name or any other distinctive personal data, but that a party can connect to a single passenger, is regarded as personal data.

As a result, the GDPR largely applies to the mobility service network.

8.3 Principles of processing personal data and the purpose of use of personal data

Processing personal data is always subject to a legal processing principle.

Processing personal data is always subject to a legal processing principle. According to the GDPR, personal data can be processed

(a) with the consent of the data subject;

- (b) in order to implement an agreement between the data subject and controller;
- (c) to fulfil a statutory obligation imposed on the controller;
- (d) to protect the vital interests of the data subject or another natural person;
- (e) to carry out a task regarding public interests or to exercise the controller's public power; or
- (f) to protect the interests to which the controller or a third party is entitled.

In the mobility service network, personal data will mainly be processed on the basis of item b (implementation of an agreement) or f (protection of legal interests). In addition, a public party regarded as an authority taking part in the implementation of the travel chain (such as a joint municipal authority) can process personal data on the basis of legal interests, insofar as the processing does not concern the exercise of public power or the performance of other public administrative tasks. It is possible that a controller has several parallel principles for processing personal data for different purposes.

If the controller wants to process other personal data in addition to the data required to provide services, the data subject's consent (item a) may be required. With regard to consent, it is essential that it is clearly formulated so that the data subject understands to what they are giving their consent. The data subject must give their consent voluntarily by means of an active procedure.

The purpose of use of processing personal data has an impact on the selection and determination of the processing principle. Purposes of use must be planned and defined before any data is collected. In the mobility service network, data is mainly collected for providing services and managing customer accounts. The controller must inform data subjects of the purposes of use before processing any data. It should also be noted that, primarily, data can only be used for predefined purposes of use.

8.4 Positions of the controller and processor

Different roles are involved in processing personal data. The controller defines the purposes and methods of processing personal data, independently or together with others. The processor processes personal data in the name of the controller. In this case, processing is commissioned or subject to subcontracting or a partnership. There can also be parallel controllers, in which case each controller has an independent right to process personal data.

In the mobility service network, the MaaS operator, being the comprehensive service provider, acts as the controller regarding personal data collected from passengers. The MaaS operator, being the intermediary, and transport service providers can act as controllers and/or processors, depending on what data is being processed and what has been agreed upon regarding the tasks and roles of each party. However, roles must always be

assessed on the basis of the actual processing function and case. It is not possible to deviate from any roles defined in the legislation.

The controller defines the purposes of data processing independently and uses data for its own purposes of use in accordance with its own data processing procedures. However, the processor does not process data for its own purposes of use. Instead, it processes it in accordance with instructions issued by the controller and an agreement signed with the controller, and only in the name of the controller. Furthermore, the processor does not have any independent right to use data.

The controller must notify data subjects of any processing of personal data. This information must be provided in a clear and understandable format. The GDPR defines the content of information provided in more detail. This information includes the controller's contact details, information about the purpose and principles of data processing, and information about the rights of data subjects. However, the parties can also agree upon their mutual responsibilities so that a contracting party is obligated to give information to data subjects.

When data is transferred from one controller to another, the transferring party is responsible for ensuring that data is transferred in compliance with the legislation.

8.5 Rights of data subjects

Data subjects, or users of services, have several rights related to the processing of personal data. Initially, each controller is responsible for the fulfilment of rights regarding the data they have collected.

In order to ensure that data is processed in a transparent way, the controller must give information to data subjects before processing any data. If a data subject wants to obtain more information about the processing of their personal data, the controller must respond to the data subject's requests without any undue delay. Data subjects have the right to check what personal data the controller processes, to have data erased or rectified, or to have data processing restricted. In certain cases, data subjects also have the right to object to data processing. If data is processed in order to execute an agreement or with the data subject's consent, the data subject has the right to transfer their data from one system to another to another controller. Furthermore, data subjects always have the right to revoke any consent given to process data.

Parties to the mobility service network must take the fulfilment of data subjects' rights into account in their activities and in mutual agreements.

9 Payments and payment services

9.1 Prices

Act on Transport Services, part III, chapter 1

Section 1
Obligation to give information

*A licence holder who provides passenger transport services as well as a provider of brokering and dispatch services or integrated mobility services shall ensure that:
[...]*

- 3) *prices or the basis for calculating the prices;*
4) *the payment methods in use;*
[...]
[...]

In order to ensure that the information is commensurable and comparable, the Finnish Transport Safety Agency may give more detailed orders on providing access to the data.

Service pricing is not discussed in this report.

The Act on Transport Services defines that information about prices or pricing principles and available payment methods is made available to passengers.

As described above, the obligation to open up a sales interface applies to minimum products, i.e. basic-priced single tickets or taxi reservations. Pricing or payment principles (attributes) regarding these must be transmitted in the sales interface.

Prices of products other than minimum products are subject to agreements between service providers.

Any exchange of information and cooperation in the mobility service network must be assessed in the light of general competition regulations if they have an adverse impact on pricing.

9.2 Procurement of payment services from service providers

Act on Transport Services, part III, chapter 2

Section 2 ***Interoperability of ticket and payment systems***

Providers of road and rail passenger transport services, providers of brokering and dispatch services, or actors managing a ticket or payment system on behalf of these shall give mobility service providers and providers of integrated mobility services access to the sales interface of their ticket and payment systems, through which it is possible to:

- 1) purchase a ticket product at a basic price that, at minimum, entitles the passenger to a single trip; the travel right based on this ticket shall be easily verifiable using generally applied technology; or*
- 2) reserve a single trip or a transportation, the exact price of which is unknown when the service begins or which for some other reason will be paid by mutual agreement after the service has been provided.*

[...]

During the Lippu project, it was investigated whether interface specifications are required for payment transfers in order to offer travel chains (APPENDIX 3. Investigation of the need to develop payment interfaces between service providers). Regulations on and the provision of payment services have also been discussed with the Financial Supervisory Authority.

As concluded by the Lippu project, it is not necessary to define any specific payment interface for transport services. In the markets of payment services, there are globally used services available, and these do not prevent the transport markets from developing. There is no reason why service providers should adopt a specific nationally defined payment interface.

On the basis of the investigation, the easiest and often the most purposeful way for travel chain operators is to acquire a payment transfer service from existing service providers.

Contracting parties must agree upon who will charge travel chain tickets and reservations from passengers and how this will be done, as well as how payments will be transferred or cleared between service providers. The contracting parties should also agree upon who will take care of crediting arrangements with the provider(s) of payment services and how this will be done, and also clarify any arrangements regarding compensation and payments in arrears between each other.

9.3 Will integrated mobility services become a payment service subject to a licence?

If parties to the mobility service network transfer payments independently to some extent, they must identify whether this activity is within the scope of the Payment Services Act. Payment services are defined in the Payment Services Act which is supervised by the Financial Supervisory Authority.

In some situations, the MaaS operator must understand that its operations regarding payment transfers may become subject to a licence in accordance with the Payment Services Act.

The application of the Payment Services Act [12] can be assessed as follows:

- If a party accepts payments in its own name, it is not a provider of payment services.
 - The implementation and business model are significant. For example, Wolt orders food in its own name and sells it to consumers, which means that it does not provide payment services.
- If a party combines other services, accepts payments from these services and transfers them to other parties, it is a provider of payment services.
- The payment methods offered are insignificant considering the role of a payment service provider (apart from cash).
- Payment transfers related to integrated mobility services or other mobility services can be outside the scope of application of the Payment Services Act on the grounds that the network is restricted.
 - Passenger transport services are listed as an example of a restricted network in the justification of the Payment Services Act.
 - However, if other services, such as parking fees, are connected to the travel chain, the network will probably no longer be restricted.

The provision of payment services is subject to a licence issued by the Financial Supervisory Authority.

- The licence procedure depends on whether or not the provision of payment services is minor.
- The licence process typically takes approximately six months and supplementations are usually needed.
- A lighter procedure applies to smaller service providers.

10 Regulations on package tours

The legislation on combinations of travel services and the providers of such combined services is undergoing changes. [13] New acts will replace the Package Travel Act and the Package Tour Act. The changes enter into force on 01/07/2018.

Travel chain providers should evaluate whether the bundles of services they offer are subject to travel package legislation. In these situations, the service provider must observe the obligations set forth in these acts, for example as regards securities.

Travel package legislation is supervised by the FCCA, which is planning to publish guidelines for the interpretation of the legislation in early 2018.

11 Identification services

Contracting parties must assess whether passengers need to be identified so that their identity is verified and tied to the travel chain at some point of the travel chain, and who will identify passengers and how.

The travel identifier must be handled separately from the authentication of passengers.

The travel identifier and passenger identification must be assessed from the viewpoint of personal data processing.

How anonymously passengers can obtain a travel chain can be assessed on the basis of the investigation of personal data processing. The ground rule is that no personal data should be processed unnecessarily. This also applies to the identification of passengers. From the viewpoint of personal data processing, a completely anonymous acquisition and use of a travel chain is mainly possible when the travel chain is paid in cash.

Passengers can be identified electronically or on site when using services or in the vehicle, if this is necessary for the provision of services (and a criterion for this exists in the GDPR).

In transport services in general, persons must be identified to some extent at least in the following situations:

- If a discount is obtained on the basis of identity
- In the case of personal ticket products/season tickets
- Some modes of transport set requirements for passenger identification (verification of identity)

The minimum product in accordance with the obligation to open up a sales interface as set out in the Act on Transport Services does not include any of the aforementioned reasons to identify passengers.

However, passengers may be authenticated expressly or indirectly for practical reasons or needs related to the acquisition or use of a travel chain.

- This authentication is not necessarily related to the passenger but, for example, to an electronic payment method using which the passenger or another person pays for travel.
- Authentication may also be related to the identifier using which the travel authorisation is verified in the vehicle. An identifier is not necessarily tied to a specific person but to the holder of the identifier.
- If identity is tied to the travel chain, it is also significant when a person is tied to the travel chain. For example, identity can be verified from a personal ID card during travel.
- In the case of complaints or compensation, it must be possible to reliably link a passenger demanding compensation to the travel chain for which they demand compensation.

If the identity of a passenger needs to be verified, service providers need to assess what is a sufficiently reliable method.

- Weak or strong authentication methods can be used in electronic identification. In the near future, strong electronic authentication (banking codes, mobile certificates, electronic identity card) can be obtained centrally from registered identification brokering services that are listed in a register maintained by FICORA [14].

12 Use of trademarks

Contracting parties must agree upon the presentation of trademarks.

It must be possible in the contract chain that the integrated mobility service shows the trademarks of available transport services to its customers.

It must also be possible in the contract chain that the trademark of a transport service is shown on a ticket or otherwise in the integrated mobility service product or service environment (e.g. applications).

Logos must be presented in the form they are presented by the trademark holder or required in the agreement. When handling trademarks, the legislation on the use of trademarks must be complied with.

The holder of a trademark has the right to demand that it is ensured in the agreement chain that the trademark is not used without authorisation or in a misleading way to obtain goodwill. Trademarks can only be used when offering products or services based on a contract or contracts for the concerned service. Trademarks cannot be used in any manner listed in section 14 of the Trademarks Act (7/1964, as amended by 616/2016) [15].

13 Also in all other respects, the contracting parties must act in accordance with honest practices in industrial or commercial matters, and they must not exploit the reputation of another service provider in an illegal or misleading manner. Here, the Unfair Business Practices Act [16] applies.

[16].Responsibilities for users

There are no specific regulations on the protection of passengers in travel chains. Regulations on the rights of passengers related to MaaS operators and transport service providers are fragmented and case-specific. As a result, it is recommended that parties agree upon their mutual responsibilities.

The MaaS operator and transport service provider can agree upon their responsibilities fairly freely. The rights of users defined in the Consumer Protection Act [17] and in special regulations on each mode of transport cannot be agreed upon in a manner so as to weaken the position of passengers.

13.1 Clear understanding of the roles of contracting parties and services

The obligations of transport service providers in relation to passengers are largely defined on the basis of special regulations on each mode of transport. In addition to special regulations, the responsibilities of the MaaS operator depend significantly on the scope of the services it offers, the position of passengers and mutual contractual relationships.

Depending on the aforementioned factors, the MaaS operator can be in the role of a comprehensive service provider or intermediary. In addition, regulations on package tours impose significant obligations on the MaaS operator, where applicable.

Before providing any services, contracting parties must understand their roles and positions in the travel chain. In addition, these must be communicated clearly to passengers so that they know with whom they are in a contractual relationship. The contracting parties must clearly inform passengers of the content of their services.

13.2 Obligations to provide information before entering into an agreement

Regulations on the obligation to provide information depends on the mode of transport and the roles of parties and passengers (consumer/business traveller).¹ The parties must be aware of their statutory obligations to provide information. In addition, it is recommended that the parties agree upon the following:

- Will all obligations to provide information regarding the sale of a travel chain be assigned to a single party? If there are central obligations, how will costs be divided?

¹ Regulations on obligations to provide information are defined, for example, in the Consumer Protection Act, special regulations on different modes of transport, the Act on Transport Services and regulations on package tours.

- Who will be responsible for the proper fulfilment of the obligations to provide information set out in the Consumer Protection Act and any overlapping obligations determined by the mode of transport?
- Transport service providers may be held liable on the basis of the MaaS operator's marketing activities. How can the parties ensure that marketing and sales information about the MaaS operator's services is appropriate and fulfils statutory requirements?
- How can the MaaS operator obtain information about any changes made in information provided for passengers before entering into an agreement?

13.3 Shared practices regarding incidents in the travel chain

Special regulations on each mode of transport set different notification, re-routing and assistance obligations for transport service providers in the case of changes and incidents. However, they do not pay any attention to specific questions related to travel chains. The obligations of the MaaS operator are mainly defined in accordance with general contractual principles.

To fulfil and protect the rights of passengers in unclear situations, it is recommended that the parties agree upon the following shared practices:

- How can the MaaS operator obtain information about any changes or incidents related to the travel chain?
- Who will notify passengers of how a delay in or the cancellation of a part of the travel chain affects the remaining parts of the travel chain?
- How can such notifications be coordinated with the statutory obligations of the MaaS operator and transport service provider to provide information?
- What rights does the MaaS operator have to cancel or change tickets it has acquired for a passenger if it needs to reroute the travel chain due to changes or incidents?
- How can it be ensured that a passenger's travel chain continues in situations where the travel identifier does not work? Who will passengers be advised to contact?
- During some incidents, the MaaS operator and transport service provider may have a partly overlapping rerouting obligation with a different scope. It is recommended that the parties agree upon how these obligations can be fitted together or centralised in order to protect the rights of passengers.
- How can different parties to the travel chain exchange information about any rerouting or refunds towards passengers?

13.4 Customer complaints and compensation

On the basis of governing special regulations, transport service providers may be obligated to pay separately defined standard compensation to passengers.

Also to the extent that special regulations do not apply, the consumer has the right to receive a price reduction or refund in accordance under general consumer legislation.

If a passenger also incurs losses, general contractual principles may apply. Because the MaaS operator can act in different roles, it may be unclear to passengers who the actual responsible party is. For the sake of clarity, it is recommended that the contracting parties agree upon the following:

Complaint process and giving information about the process to passengers:

- To whom can a customer complaint be filed?
- Are the parties obligated to forward any complaints received to the actual responsible party?

Compensation practices:

- Will a specific party centrally handle all customer compensation cases? If there are central obligations, how will costs be divided?
- If the MaaS operator and transport service provider are responsible for passengers on the basis of different regulations, which one should passengers primarily turn to?
- What responsibilities does the transport service provider have for cancellations that have an impact on the MaaS operator's services?
- Contracts cannot, however, restrict the consumer's right to make a direct claim for compensation to the passenger transport service provider.

13.5 Accessibility of travel chains

It is recommended that the MaaS operator and transport service provider agree upon practices in order to transmit information about any assistance given to passengers and the rights of disabled passengers in the case of any incidents. Disabled passengers need to obtain information about accessible routes beforehand. Service providers should also be prepared for individual and reasonable requests regarding adaptations [18].

With regard to the accessibility of travel chains, it is recommended that the parties agree upon at least the following practices:

- How can information about assistance needs be transmitted in the travel chain?
- How can the rights of disabled passengers be taken into account in the case of any incidents?

- How can information about any extra charges be communicated?
- How can information about accessible routes be communicated reliably?

14 Responsibilities between contracting parties

Responsibilities between contracting parties may remain unclear if they do not agree upon them.

With regard to agreements, it should be noted that agreements on the mutual distribution of responsibilities must not weaken the legal position of consumers. Such contractual clauses are not valid.

It is recommended that the parties agree upon the principles with which they are entitled to receive compensation from their contracting parties if they have paid compensation to a passenger regarding losses they have not caused.

It is recommended that responsibilities are distributed in a way that risks and responsibilities are held by the contracting party that has the best ability to prevent any losses. Furthermore, contractual practices regarding the distribution of responsibilities should not lead to any unreasonable outcome. It is recommended that the distribution of responsibilities be agreed upon so that even small parties to the travel chain are able to maintain their risk-bearing capacity.

15 Contractual questions

15.1 Confidentiality

This code of conduct is public.

The contracting parties agree upon the confidentiality of their agreements. Any non-disclosure agreements cannot supersede the rights of consumers to obtain information about to whom customer complaints can be filed.

Any non-disclosure agreements cannot supersede the regulatory obligation to submit information to the authorities or publish information.

On the basis of the EU Commission's multimodal regulation [7], a link to the sales interface must be sent for publication in the Finnish Transport Agency's NAP/NAPOTE database (Act on Transport Services, part III, chapter 2, section 1), in which interfaces concerning significant information are also published.

15.2 Transfer of the agreement

The contracting parties must agree upon whether the agreement can be transferred to third parties and upon the preconditions and procedures of such transfers.

If the agreement can be transferred, it should be ensured that the party to which the agreement is transferred fulfils the legal requirements set for opening up or using an interface.

15.3 Settlement of disputes

The contracting parties must agree upon the settlement of any disputes. Primarily, disputes should be settled in mutual negotiations. Any disputes that cannot be settled in mutual negotiations can be settled in a district court or in arbitration proceedings.

In some cases, the supervisory authority can decide on whether or not regulatory obligations have been fulfilled.

Regarding contractual negotiations over minimum products, Trafi, being the supervisory authority, can decide whether or not a clause is in accordance with compelling legal obligations.

15.4 End of agreement

An agreement can only be valid for a fixed term or until further notice. An agreement ends when one of the parties submits a termination or cancellation notice or by a mutual agreement of the contracting parties.

An agreement on a minimum product cannot be terminated or cancelled unilaterally on the basis of a reason related to a contracting party that cannot be considered to be in accordance with requirements set for the obligation to open up a sales interface as defined in the Act on Transport Services.

Termination criteria for agreements other than those on minimum products are defined in accordance with general contractual principles.

If problems arise, the primary option should always be an amicable settlement and, in serious situations, a temporary suspension of the provision of the interface.

When the agreement ends, any impact on other parties to the mobility service network must be taken into account.

16 References

[1] Act on Transport Services (320/2017)

[2] Glossary of public transport terms, Finnish Transport Agency Handbooks 4/2013

[3] Memorandum by the Traffic and Communications Committee, 20/2017 vp - Government Bill 144/2017 vp

[4] Government Bill HE 144/2017 vp submitted to the Parliament for amending section 12 of the Public Transport Act and for certain related acts

[5] Act on Competition Restrictions (948/2011)

[6] Government Decree 643/2017 on essential information on mobility services

[7] COMMISSION DELEGATED REGULATION (EU) 2017/1926, of 31 May 2017, supplementing Directive 2010/40/EU of the European Parliament and

of the Council with regard to the provision of EU-wide multimodal travel information services.

[8] The interface definitions are available at

<https://github.com/finnishtransportagency/lippu-api>

[9] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

[10] Opinion 05/2014 on Anonymisation Techniques by the Data Protection Working Party, adopted on 10 April 2014 (0829/14/EN, WP216)

[11] Government Bill 145/2017 vp for amending the Act on Transport Services and for certain related acts

[12] Payment Services Act (290/2010), see also Act amending the Payment Services Act (898/2017)

[13] Government Bill 145/2017 vp to the parliament for the act on combinations of travel services and act amending the Consumer Protection Act, and the Government Bill 120/2017 vp to the parliament for the act on providers of combinations of travel services, act on the supervision and insolvency protection charge for providers of combinations of travel services, and the act on amending section 6 of the Act on the Grey Economy Information Unit, and the act on amending section 30 of the Criminal Code of Finland

[14] A register as referred to in section 12 of the Act on Strong Electronic Identification and Trust Services (617/2009):

<https://www.viestintavirasto.fi/en/cybersecurity/electronicidentificationandsignature/egisterofidentificationproviders.html>

[15] Trademark Act (7/1964, amended 616/2016)

[16] Unfair Business Practices Act (1061/1978)

[17] Consumer Protection Act (38/1978)

[18] Non-discrimination Act (1325/2014)

17 Appendices

1. Legal investigation by Dittmar & Indrenius Attorneys Ltd.
2. LIPPU-API: Security Considerations
3. Investigation of the need to develop payment interfaces between service providers
4. Figure: data flows in the travel chain

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