



# Public Transport Franchising The Mobility Model for a Post-Covid World?

By David Panter, Industry Solutions Manager, Trapeze Group Brian Higbee, Project Director, Intelligent Transport Systems Andrew Shaw, Project Manager, Intelligent Transport Systems



# Public Transport Franchising

The Mobility Model for a Post-Covid World?

In recent years there has been increasing interest in 'franchised' models globally. This, of course, is not particularly surprising.

As the transport industry begins to recover from the damaging effects of COVID-19, it has been suggested that franchising could become a more attractive proposition. Faced with the prospect of less predictable demand, authorities may see greater control as a way to ensure the provision of efficient and reliable services across their entire region. Desired outcomes include simplification of the network and fares, and better interoperability between services and modes.

Meanwhile, bus, light rail, and ferry operators, some of whom have historically been lukewarm on the model, may well be more open to such an approach, welcoming the relative stability and minimising risk at a time where the profitability of routes is harder to predict.

#### FRANCHISING EXPLAINED

A franchised model, as is in place in London and Singapore, is where the authority specifies the services to be provided, determining the routes, timetables, and fares.

Services are then operated under contract by private companies through a competitive tendering process.

#### Franchised and 'Franchise-Like' Models

One of the challenges in this area is that while there are some clear success stories, there is no single established model to follow.

There are a range of elements that could be included under the description of franchised or 'franchise-like'. London's and Singapore's networks are notable success stories, but they are at the more comprehensive end of the scale in comparison with 'lite' models found elsewhere.

Having worked with Transport for London (TfL) on iBus and iTram for some 15 years, and with Singapore Land Transport Authority (LTA) for almost 10 years, where their franchising is underpinned by our global flagship Intelligent Transport System (ITS), this is a model Trapeze knows extremely well.



Almost 10 years





Additionally, we are currently in the process of delivering the end-toend travel information solution for the National Transport Authority (NTA) in Ireland, which will expand on the ITS functionality delivered by Trapeze in London and Singapore.

However, it is important to recognise that other regions with franchising aspirations may have different goals, infrastructure resources, and limitations. From Sydney to Scandinavia and beyond, we have seen a variety of models implemented.

There is much to review here, so later in this whitepaper, we compare some of these franchised models from around the world. But first, let's focus on where franchising makes sense, and the key elements when considering adopting this model.

#### FRANCHISING IN LONDON

As arguably the world's most notable franchising success story, London is a key case study referenced in this guide.

The London model contains the following elements:

Route design, tendering and award

Collaboration Portal to manage schedule variations

Performance monitoring and trip validation direct operator payments

~9,000 vehicles across 13 operators and 87 depots



# **Does Franchising Make Sense?**

Establishing whether or not franchising would work both operationally and financially is, of course, a vital first step.

For the purpose of this whitepaper, it is reasonable to expect that any readers will have undertaken some form of assessment and determined that there is a case to be made for this kind of model. Nevertheless, it is prudent to state the importance of undertaking a feasibility study. Below are some of the key elements to include.

#### FRANCHISING IN SINGAPORE

Singapore, like London, has a comprehensive franchising model.

The Singapore model includes the following features:



The authority owns the buses, and leases them to operators



Like London, the model includes performance monitoring and direct operator payments



~6,000 vehicles across 4 operators and 12 depots

#### **Local Operators**

Regions with a single dominant operator – especially non-urban areas – may not be as well suited to a full franchised model. It is less likely that significant value can be derived by taking the network planning away from an operator and then handing it straight back to them to deliver. It is therefore worth considering whether the desired outcomes could be achieved by continuing with the existing arrangement, adding in any extra requirements that may be needed under an enhanced partnership agreement.

#### **Network Density**

Typically, for a franchising model to work well and to deliver value for money, it requires a denseness of the overall network, with at least two operators who are capable of bidding for the work in a competitive manner.

# **Regional Coverage**

There may be a significant benefit to be found in areas where, by taking ownership of the network, an authority can improve the overall coverage and accessibility to public transport for citizens.

Perhaps this could be achieved by reducing competition on overserved routes to fund improved service to areas with less demand where transport is a social requirement.

This would also enable inroads to be made into the reduction of congestion and improvement of air quality.

#### **NETWORK PLANNING SKILLS GAP?**

In some instances, authorities may lack the skills to plan franchised networks that meet their mobility objectives.

In areas where services have previously been commercially managed, there may not be the experience or expertise within the team.

While local operators often have network planning expertise, historically they will have approached the task from a profitability – rather than a social requirement – perspective.

It is also worth noting that one of the largest challenges here relates to changes in demand. While seasonal variability has historically been a concern, we assume this will be more problematic post-COVID-19, with less predictability around travel habits.

Regardless of whether services are franchised or run commercially, this is a challenge that will need to be addressed, most likely with new technology, and upskilling or reskilling of planning and scheduling teams.

# **Confused? Trapeze can help**

If you require assistance determining which type of franchised model is best for you – or even if it makes sense at all – Trapeze is ideally positioned to support this process.

As a technology supplier to authorities and transport operators – and a key partner in the world's leading 'full' franchised models in London and Singapore – we are uniquely positioned to advise whether the model makes sense, and if it does, how to determine the right financial model and then implement it in line with your specific requirements.

#### **London's KPI Franchise Model**

For a franchised model to thrive, it is essential that operators can profitably deliver services. With a 'full' franchising model like London's, the operators are paid by the authority in accordance with their delivery against agreed Key Performance Indicators (KPIs).

This outcome requires authorities to have detailed, accurate, transparent, and trusted means of recording and reporting on KPIs. In London, the key KPI measured relates to mileage operated against the operator's service contract, together with schedule adherence and headway (Excess Waiting Time) as service quality measurements. A secondary system called Missing Trips Validation (MTV) reviews and categorises any missing data to ensure the KPIs are both fair and accurate.

It is essential to have trusted and proven technology here, as it underpins the entire financial model. London's business intelligence outputs provide staff with the ability to manage and interpret data derived from operators.

In a city that manages tens of thousands of 'Notices of Events' each year, this solution enables staff to accurately process the volume of work, and ensures TfL and operators' staff can rely on a neutral, proven tool in relation to any queries over service delivery.

Additionally, by tightly linking operator payments to reporting from the Automatic Vehicle Location (AVL) system, this relationship has a secondary benefit: operators are naturally highly focused on ensuring AVL equipment is working correctly, which underpins London's high availability of real-time passenger information.

# Singapore's KPI Franchise Model

In Singapore, the LTA has implemented a 'full' franchised model similar to London's. Otherwise known as the Bus Contracting Model (BCM), franchising in Singapore was introduced in 2014, and fully implemented in 2016.

Their aim was to enhance connectivity and improve bus service standards for Singapore's 5.7 million residents and enable bus operators to respond to ridership and commuter needs more effectively. The city's 6,000 buses from four different bus operators deliver services within the framework, which is managed via Trapeze's LIO ITS system, ensures common bus quality management and monitoring across all operators, and facilities for LTA to monitor and measure the performance. Since the BCM was introduced, LTA has a better understanding of how the bus fleet operates across all of Singapore. LTA has implemented many improvements that have provided increased customer satisfaction, reduced waiting times, and increased ridership levels.

The LTA is absolutely thrilled by the results of the Bus Contracting Model. Bus customer satisfaction ratings are through the roof and are well over 90%. We have never looked back and have never regretted it. Because we took the revenue and asset risks away from the operators, all they need to do is turn up and operate their services well. We are now in full control of service decisions and what is best for Singaporeans.

Jeremy Yap - Deputy Chief Executive of Public Transport, Policy and Planning, Singapore Land Transport Authority.







# **Global Perspectives**

# **An Overview of Regional Franchising Models**

Having supported the delivery of customers operating franchised and franchise-like models globally, Trapeze offers a unique perspective on the different approaches taken, with examples outlined below. In many places where a franchised or privatised model dominates, the reality is that many public transport networks are heavily subsidised because services require ongoing funding and governments generally prefer to maintain long-term control of assets.

Services delivered by private operators on unprofitable routes require subsidisation by the transport authority to ensure services are continually provided. This scenario may increase post-COVID, as previously profitable routes become commercially unviable, requiring authorities to step in to sustain essential mobility.



#### **Australia**

In Australia, both Sydney and Melbourne operate a form of the franchised model. Speaking recently on an episode of the Transit Unplugged podcast with Paul Comfort, Rodd Staples from Transport for New South Wales in Sydney said: "We contract the service and service performance and pay operators for the delivery and quality of their services, and the state takes the revenue risk. As a result of that, we have actually increased services."

# **Ireland**

In Ireland, the NTA is responsible for the licensing of bus passenger services. In Dublin, the authority defines the network and bus operators bid to deliver the network. This network includes integrated multi-modal ticketing, known as LEAP.

Once granted, the selected operator runs the network on a commercial basis. Elsewhere, operators apply for licences to run services.

#### **Norway**

A variation can be seen in much of Norway, where regions utilise a franchise-like model with authority control over the network. Typically, the fylke (Norwegian county) defines the routes and tenders for operators to deliver services. Operators bid for routes and are then paid to run the contracted services and can achieve greater profitability by increasing ridership.

#### **United Kingdom**

In the United Kingdom, there is also the option to adopt 'Quality Partnerships': an agreement where authorities invest in improved facilities (typically bus stops or bus lanes), and operators commit to improving standards (new buses, driver training, etc.).

Unlike a franchised model, operators still design the routes and retain revenues, with authorities providing extra financial support for achieving quality measures.

Additionally, 'Enhanced Partnerships' go further, enabling local authorities to specify elements such as timetables and multi-operator ticketing, and to take on service registration functions from the traffic commissioners

#### **United States of America**

In the US, most transit agencies outsource some of their fixed-route service to contractors. Typically, a Request for Proposals (RFP) identifies the scope of work and details of routes, fares etc., and bidders respond with a technical proposal outlining their capabilities and a price to provide the service.

The majority of agencies pay their contractors an hourly rate to provide the service as described in the tender.

We contract the service and service performance, and pay operators for the delivery and quality of their services, and the state takes the revenue risk. As a result of that, we have actually increased services.

# Technology to Underpin Franchised and Franchise-Like Models

The delivery and management of a franchised model can be supported by a range of existing technology solutions:

## **Schedule Data Management and Operator Interactions**

With any form of subsidised route – but especially a franchised model – it is vital that the authority has reliable tools for managing interactions with operators. This kind of functionality, which Trapeze is currently delivering for Transport for London and NTA in Ireland, enables an authority to create franchised routes and put them out to tender; then manage the tender process and validate responses.

This technology incorporates an operator collaboration portal to ensure any route variations are received, and interfaces with the ITS system's missing trips module to underpin accurate KPI-based operator payments.

#### Scheduling

In a franchised model, operators still require scheduling software. Indeed, this is a critical tool, as a scheduling solution integrated with the authority's tools will enable operators to respond to tenders quickly with valid, competitive responses, ensuring planners can prioritise their time on optimising schedules to maximise profitability.

#### **Intelligent Transport Systems (ITS)**

ITS underpins franchised models by ensuring the authority is able to manage all aspects of the network, including planning, operations, Automatic Vehicle Location and Control (AVLC), ticketing, headway management, real-time passenger information (RTPI), disruption response, depot management and business intelligence. Additionally, in cities such as Singapore and London, where trip validation underpins the entire KPI model and directs all operator payments, the ITS system assesses whether every trip was delivered in line with the contracted service. Given that there will always be missing trips and deviations, it is essential that the ITS real-time system is reliable, transparent, and trusted by all parties.

The most advanced ITS solutions integrate with other systems, including ticketing (Riyadh, London, Singapore), CCTV (e.g., in Riyadh, Tshwane and Cape Town), traffic light pre-emption (London, Tshwane), infotainment services (Zurich), and SCADA. ITS can also provide data to maintenance management solutions for both predictive and condition-based maintenance. When systems integration and automation occur, this provides additional efficiency gains as all systems act like one, instead of independently.

# **Duty Allocation**

In a full franchised model, operator payments are determined by performance against agreed KPIs. Duty Allocation Systems (DAS) are vital as they provide the monitoring, transparency and alerting required to ensure operators can deliver in line with the contracted service, despite issues arising on the day. Advanced new functionality, including mobile sign-on, reduce failed reliefs that can impact service delivery, and optimise processes to underpin competitive tender responses.

# **KEY TECHNOLOGY TO UNDERPIN** A FRANCHISED MODEL **AUTHORITY** Routes, scheduling and network design TIME **NETWORK SCHEDULES DESIGN** (Times, Blocks, ↓↑ Duties) Design iteration PVR calculation stop/stand usage ANALYSE VALUE FOR MONEY **OPERATORS** Run-cutting, duty allocation Service Specificat<u>ion</u> Time/Block /Duty Schedules **COLLABORATION PORTAL** Tender response and schedule upload AVL, Driver comms, CCTV and real-time dispatch PASSENGER INFORMATION **REAL-TIME BI & REPORTING** Missing Trip Validation for Accurate Operator Payments

MILEAGE CLAIMING PROCESS

**DASHBOARD** 

# 'Flex' and Demand Responsive Transport Scheduling

While franchising is traditionally associated with fixed-route services, the future may see the inclusion of more flexible services, enabling vehicles to deviate from the schedule to collect additional passengers.

## **Conclusion**

Since the scale of the COVID-19 pandemic – and its impact on public transport – became clear, there has been increased speculation that the franchised model could assist with the challenges the industry now faces.



However, while some may think of London and Singapore as 'typical' franchising models, the reality is more nuanced. With many franchised, or franchise-like, models in operation across the world, there are many franchising 'flavours' in operation.

Where the likes of London and Singapore are necessarily comprehensive, due to the scale of their infrastructure, not every city or region can have – or requires – such a set-up.

It is important to consider the full array of options to identify the unique combination that is best suited to the authority's specific requirements.

Whichever model of franchising is chosen, technology will be at the heart of it – and understanding the available tools and how they can be harnessed will be key.

Find out more about our ITS solutions at the Trapeze ITS Hub.

### **Exploring Franchising? We are Here to Help**

At Trapeze, we have been involved with the franchised model since day one. Having worked closely with both London and Singapore on the implementation of full franchised models, we intimately understand the processes that must be implemented and the challenges that can be expected.

Additionally, if you require support with determining which flavour of franchising is right for you, we can help with a feasibility study, taking into account the full range of factors and lessons learnt from similar projects successfully delivered around the world.

For public transport, this remains a challenging time with an uncertain future, but with the right model and technology, we can succeed together.

Trapeze has been on this franchising movement from the start, and we will continue tomorrow and beyond.

We're here for the journey.



#### **About the Authors**

# David Panter – Industry Solutions Manager, Intelligent Transport Systems

David Panter has over 20 years of experience in ITS with a focus on public transport, emergency services, and taxis. With a strong engineering and commercial background, David understands the issues involved with developing, delivering, and maintaining a modern ITS platform for both transport authorities and operators. David is responsible for helping Trapeze customers across Australia, Asia-Pacific, Middle East, and Africa realise the value inherent in Trapeze ITS solutions for buses, light rail, and ferries.

#### **Brian Higbee - Project Director**

Brian is a Project Manager and System Engineer with more than with 22 years of experience implementing AVLC and AVM solutions for major clients globally, including Transport for London. Brian's expertise extends to embedded mobile solutions, data and voice communications, real time data processing, central control systems and database solutions. Motivated by bringing together complex multi- disciplinary engineering solutions, Brian thrives on delivering solutions to time and within budget.

# **Andrew Shaw - Project Manager**

Andrew Shaw is a Project Manager with Trapeze with more than 10 years of experience implementing ITS solutions for major public transport projects, including Areyeng Bus Rapid Transit system in Tshwane, and MyCiti Buses in Cape Town. Andrew has a special interest in scheduling, central control systems and business intelligence. Andrew enjoys helping Trapeze customers in Africa achieve the benefits of ITS solutions for better public transport outcomes.









Trapeze Group works with public transport agencies and their communities to develop and deliver smarter, more effective public transport solutions. For more than 25 years we have been *Here for the Journey*, evolving with our customers around the world to help them move people from point A to Z and everywhere in between.

Australia +617 3129 2092

Singapore +65 6226 0260

Middle East +971 4 252 6640

India +91 98104 07444

Africa +27 11 025 9970