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## **Response to the KMB Franchise extension consultation**

I support the Government renewing the franchise for KMB for 10 years but recommend three clauses are added to its franchise agreement.

**1. If not already in place, the franchise agreement should give bus companies the flexibility to charge less than the agreed fare for a route.**

Reason: Bus companies should have the flexibility to offer (1) off-peak fares to shift peak passenger demand thus lowering the bus company’s costs and increasing its profitability while providing a good service to the public; and, (b) offer lower fares when customers undertake a journey made up of multiple bus rides thus allowing them to encourage passengers to shift to using a ‘hub and spoke’ service with increased efficiency and thus lower costs.

NB: I’m making this recommendation without knowledge of what is possible in this regard under the current franchise agreement. I’m making it partly because it would allow recommendation 2 below to provide added benefit.

**2. The franchise agreement should require KMB to provide real-time data on all the public service vehicles it operates to a database designated by the Government and to which the Government can give free access to App providers and academic researchers. This information to include KMB’s charge (‘ticket price’) and carbon emissions for each journey.**

Justification for this additional requirement

- a) The information facilitates travel App providers such as Google Maps and Citimapper <https://citymapper.com/apps> providing a service covering all forms of transport. The benefit of such Apps include:
- Members of the public can choose between transport modes in order to meet whichever objective they choose – shortest journey time, lowest cost or lowest carbon emissions. The App can also offer them journey options on multiple forms of transport. For example taking the MTR plus a bus.
  - Having the Apps will increase competition between modes of public transport. Examples:
    - If a bus company alters a route to make it faster this will show on the App encouraging passenger to switch to it.
    - Public transport operators may be able to use dynamic fares to shift demand. People are more likely to adjust their travel to get ‘off peak’ fares if they can easily see the difference on an App.

Note:

- i) While, as noted in para 9 (a) of the consultation document, KMB provides a phone App with real-time arrival information this only covers its services. It does not give alternative of walking or taking other public transport.
  - ii) An 'all transport modes' Apps with real-time data will make it easier to:
    - a. Convert people from their current habits to using new 'trunk and feeder' bus routes.
    - b. Gain public acceptance for rationalising bus routes by showing the alternatives and make it easy for them to see how little they will be inconvenienced.
  - iii) The overall gain is greater efficiency will lead to less energy used, less pollution, lower operating and lower public health costs.
- b) The data will be available for academic research and for the Government to commission studies on options for improving the efficiency of Hong Kong's public transport system.

**3. The franchise agreement to permit the Government to change parts its regulation of routes from approving specific routes to approving of service levels.**

Please refer to the attachment for details of this proposal. It is not expected that the Government will make this change soon but it is helpful to have the enabling provision available for the next 10 years. I provided the attachment to the HKSAR Government's acting Chief Information Officer in 2014.

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## Using IT to enable bus route rationalisation

### The Need

Various factors cause Hong Kong bus routes to be inefficient. In particular:

- Currently, changes in bus routes can only be made after extensive public consultation. This is time-consuming and deters action to rationalise routes. The consultation process makes it easy for small special interest groups to hold up or block changes. The lack of flexibility on changing routes reduces competition between public transport providers. For example bus companies may be reluctant to experiment with new routes for fear that they will have difficulty in withdrawing from them if they are uneconomic. More competition should lead to better services and/or lower fares.
- Hong Kong appears to have an excess of origin-to-destination routes, leading to buses being under-utilised for part of their routes. Efficiency can be improved by having more trunk routes between hubs, from which short distance feeder routes branch out.
- As noted in the 2014 policy address, substantial rationalisation will be required over the next five years with six new railway lines being introduced.

Inefficient bus routes increase costs (and hence bus fares), congestion and pollution.

It would be very unfortunate if a failure to rationalise bus routes leads to more new buses being purchased, with Government subsidies, than would be required by an efficient bus system.

### The Solution

Government policy should move from consulting stakeholders on individual bus routes to consulting them on service levels for the frequency of public transport services at each location which affects them.

Three information technology innovations are required to enable this change. They are already in place to some extent:

1. Every bus, minibus, tram and train in Hong Kong should have real time reporting of its location to a single database. This database can then be analysed to determine the actual service level provided at each point in the territory.
2. Computer simulations should be developed using the database, to estimate changes in service levels which would result from changes in bus routes proposed by operators.
3. Transport apps available to the public should be improved so they can find, in real time, the best option from a time and cost point of view, for getting from one place to another.

With this technology available the Government can operate as follows:

1. Set the target level of service for public transport for all locations in the territory. Then consult stakeholders on this 'service level' document and make justified changes.
2. Improve transport nodes which facilitate trunk and feeder route systems. Part of this change may include introducing a market mechanism for transport providers to compete for space at transport nodes.
3. Collect a levy on all public transport fares and use the resulting funds to incentivise companies to provide the services needed to meet the target service levels. These incentives will only be needed where an unsubsidised route is not viable at reasonable fares. It is expected that it will only pay for mini-bus feeder services to hubs from a relatively small number of rural locations. The levy should be set at a level where the funds raised equal the

amount paid out. The Government should provide standby loans to cover any temporary deficits so the fund will not need to build up and hold surpluses.

4. Arrange the following route change process:
  - a. Approximately every three months, public transport operators will submit the changes in schedule that they will make in another three months' time.
  - b. The Government runs a simulation model to see what service deficiencies this may lead to. It then:
    - i. Tenders for bids from public transport operators to add services to cover the deficiencies. The transport operator which offers to provide the service for the lowest subsidy will win the bid and will start operation at the same time as the other notified route changes happen.
    - ii. Has the power to instruct the existing operators to delay cutting an old route for up to a further three months if this time is needed to set up the new service.
5. The Government then monitors the actual service provided and, in the next round, arranges additional tenders if required.
6. The Government publishes the level of subsidies provided and the levies required to meet them.

Transport apps will inform the public of the changes in routes, and which route will take them to their destination the fastest. Note:

1. This information tells the public their best route (from both cost and time perspective) when the schedule changes, leading to (a) fewer complaints regarding changes in routes; (b) quicker switching when improved routes are offered.
2. This quicker switching puts pressure on transport providers to offer the best service they can.

The system should be set up so the Government can make regular minor adjustments to procedures based on experience. In particular:

1. The locations at which service is provided and the level of service may be changed from time to time based on the number of passengers using these locations and input from stakeholders.
2. For rural locations with low traffic densities, the government may allow transport providers to experiment on a trial basis with providing services in response to text requests rather than having fixed schedule runs.

### **Benefits of the solution**

The solution uses market mechanisms to facilitate flexible, cost-effective provision of the public transport service level set by Government after consultation with stakeholders. Bus companies will be free to change routes on giving due notice. This will allow more rapid changes to meet demand and hence a more cost effective service which causes less congestion and pollution. For example, more rapid changes guided by demand can be made when the opening of a new MTR line takes passengers from buses.

### **Further development required for this proposal**

This proposal needs to be expanded to address the fare levels that public transport companies can charge when they change routes. Ideally, fares should be set by competition, with the Government regulating the overall return which large transport providers with quasi monopolistic positions can earn.