



STRATEGY MEMO

Implementing the Sectorization of Public Bus Routes through Better Management of Internal Processes

Abstract

Better public transportation is necessary for Costa Rica to reach the decarbonized economy goal. This memo presents a plan on how to accomplish one small but impactful solution.

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Executive Summary

The Costa Rican government began this year by announcing its ambitious National Decarbonization Plan, a commitment to become a decarbonized economy by 2050. In this plan, the first activity to be proposed for improvement is transportation. However, the intended solutions included in this plan are not realistic, and could potentially generate further socioeconomic inequity.

This Strategy Proposal focuses on a disregarded policy action initially proposed twenty years ago. Part of the public transportation policy, Sectorization suggests a reorganization of bus routes in the San José Greater Metropolitan by establishing a two level hierarchy of frequency and capacity based on the demand of a route.

However, due to private interests, and political and bureaucratic gridlock, this improvement has not been achieved. This proposal will explore and detail the three parallel lines of action that must be performed to make Sectorization a reality.

First, through the Legislative branch, two main improvements must be proposed to Bill 3505 (*Regulatory Law for Remunerated Transportation of Persons in Motor Vehicles*). First, Article 11 (prohibiting a person of being owner of two or largest shareholder of three companies that have been granted several concessions) must be eliminated to allow a freer market for bus concessionaires. Second, Article 21 (allowing concessionaires to renew contracts by proving they complied with all their requirements, even after 7 years of contract) must be modified to eliminate the possibility of renewing contracts. This will force both concessionaires and the CTP (Public Transportation Council) to review conditions and open bidding processes with the expiration of concession contracts.

Second, through the Executive Branch, the CTP must prepare new frameworks for the coming concession contracts. Through the new contracts, the Council can shift the burden of demand risk onto concessionaires, to work as an incentive to increase their demand. Additionally, the CTP can require from those concessionaires winning the route from downtown to the hubs to build the hub terminals, with the possibility of reimbursement if they lose the concession.

Lastly, the ARESEP's (Public Services Regulating Authority) use of obsolete methods, norms and coefficients must be addressed to improve the provision of public services. For this line of action, a process improvement could be accomplished through the implementation of business process management methods such as Agile or Kanban. Once ARESEP is functioning more efficiently, it will be able to have a better relationship with other institutions, specific to this case, with CTP. This is important for the actions previously mentioned in the second line of action, as both institutions will have to work together to propose the fare mechanisms that will be offered to the concessionaires to improve their contractual conditions.

This strategy, and anything that pretends to change the current conditions, will be faced with opposition of large worker unions. Bus driver unions are specially strong in the country, and must be taken into account, as their support or opposition could make or break this proposal's success.

Public transportation, even at its most basic level of service, is pivotal to accomplish the government's goals. Sectorization will allow the government to achieve its decarbonization much faster than the highlighted strategies, at a fraction of the cost. Sectorization may be a simple change, but its impact and cost benefit analysis will evidence its importance.

Strategy

Background and Context

Transportation and mobility have become an urgent issue in San Jose's Greater Metropolitan Area. The working class is spending endless hours stuck in traffic, and this is generating serious consequences on the economy. In 2018, almost 4% of the GDP was lost in these congestions (Programa Estado de La Nacion, 2018). Private vehicle ownership increased from 525 376 registered vehicles in 2007 to 879 416 in 2016 (Secretaria Planificacion Subsector Energia, 2018). Meanwhile, public transportation loses demand, even as congestion worsens (Munoz, 2018).

The current government announced in February 2019 its National Decarbonization Plan, part of its commitment to the Paris Accord. The plan consists of four core topics, first and foremost stands improving and modernizing transportation and mobility, with goals such as sustainable electric public transportation independent of fossil fuels, high percentage of electric vehicle ownership, and zero emission freight transportation (Carlos Alvarado Quesada, 2019) . In addition, the government of Costa Rica has also committed to the United Nation's Sustainable Development Goals, with an emphasis on environmental sustainability and social equity.

However, not enough emphasis is being given to strategic actions that could dramatically improve the congestion problem, such as the Sectorization of bus routes. Twenty years ago, the *Regulation Policies and Strategies for the Modernization of the Paid Collective Transport of Persons by Urban Buses for the Metropolitan Area of San José and surrounding areas that directly or indirectly affects it* was approved and introduced to modernize public transportation. Although a fitting proposal, this policy of sectorization of bus routes has suffered from bureaucratic gridlock and pushback from certain interest groups, rendering it unsuccessful.

The topic of transportation has been associated to many, if not all aspects of an economy. This includes daily transit dynamics, urban sprawl, environmental impact and socioeconomic development. Good and efficient mobilization is key to economic growth and improving quality of life.

On January 27th, 2017, a new Executive decree concerning the Sectorization policy was signed, No. 40186-MOPT, titled *Consolidation and execution of policies and strategies for the modernization and sectorization of public transport bus modality in the metropolitan area of San José and surrounding areas*.

It is safe to say almost every government since the first Sectorization proposal in 2000, has tried to implement these policies ineffectively. The current situation came to be due to a series of events that unfolded in 2014, which was the previous time when concessions expired.

Recommendations

Regardless of the delays and obstacles, Sectorization continues to be the government's best bet to actually guarantee a reduction in Green House Gas emissions. By implementing the following steps, the policy could become a reality by the end of 2021. This is because the bus route concession contracts are set to expire in September 2021.

First, several changes must be proposed by the Legislative Assembly Representatives regarding Bill 3503. These are:

1. Article 11 must be eliminated.

Article 11.- The same person cannot own more than two companies, nor be a majority shareholder in more than three companies that operate in different routes. It is prohibited to grant concessions or permits to affiliated individuals or affiliated companies, subsidiaries, intermediates, or in any way linked to another concessionaire; If the prohibition established in this article is violated, the respective permits or concessions will be canceled. The qualification will be done by the Ministry of Transport. (Asamblea Legislativa de la República de Costa Rica, 1965)

This action will generate improvements in two ways. First, the elimination of this article will free the market for the concessionaires to conduct their businesses in a more legal way, creating incentives to win more concessions. It is very important to recognize the market's characteristics in order to understand that the market supply entry barriers are high; bus service suppliers require large capitals in order to buy buses, pay bus drivers, and maintain and repair buses. This article forces the market to generate an unsustainable number of suppliers, most of which do not possess the resources to keep up with the requirements, and therefore are unable to provide the established level of service.

Second, the decrease in concessionaires will reduce the amount of work the CTP must carry out to regulate them, which means less delays in concession approvals and cost savings due to a cutback in amount of work required. Having

less concessionaires could mean less visits to monitor and evaluate bus and service conditions, worker's conditions, garages, workshops.

2. Article 21 must be changed to remove the possibility of renewing a contract after a seven year period.

Article 21.- The term of the concession will be the one indicated by the concession contract and will be fixed taking into account the sum of the investment and the term to amortize it and obtain a fair profit; It may be up to seven years but may be renewed if the concessionaire has fully complied with each and every one of its obligations and has formally committed to comply with the provisions established in accordance with Law No. 3503.

The experiences from previous cycles have proven that the possibility of renewing a contract has been abused by both the concessionaires and the CTP. If a concessionaire is able to prove their continued compliance with their obligations, they should be able to prove it in an official manner in the shape of a new bidding process.

The second course of action required to make this plan work is to develop a framework for the 2021 concession contracts. Some of the conditions that must be defined and covered are:

1. Concessionaires will be responsible of assuming more demand risk (Gomez-Lobo & Briones, 2014). This will work as an incentive for concessionaires to become more proactive in increasing demand for public transportation. In order to accomplish this step, both ARESEP and CTP will need to work together to develop the dynamic fare mechanism, where a fare range is provided instead of a precise price, and where certain monitored data also affects the fare, such as oil prices and complaints received by the Ombudsman.
2. Concessionaires who win the route from downtown San José to their respective hub will assume the cost of building the terminal. If they eventually lose the concession, they will be reimbursed an amount based on an appraisal performed by the CTP. The council will be responsible of determining the building specifications for the terminal, such as inbound and outbound bus traffic capacity, required available services and facilities (bathrooms, food and beverages, etc.)

Finally, the ARESEP's current condition must be addressed. Obsolete and rigid norms and methods reign the institution. Bus service is not the only victim of their bureaucracy, but all of the public services regulated by the Authority suffer from the same fate. In order to improve the organization's management, it is recommended that a business consultant is hired, with the goal of implementing Business Process Management (BPM) methods, such as Kanban or Agile (Sills, Tunks, & O'Leary, 2017).

Alternatives

The proposal being explored in this memo considers relying on improving market conditions for the service providers. Another, contrasting approach that could be considered to solve the current problem would be to nationalize the service.

The government could assume the job and responsibility of providing the service itself, without relying on the private sector to do so. This is a scheme that in Costa Rican history has proven successful. The Costa Rican Electricity Institute (ICE) was nationalized in 1949 (ICE, 2019); the Costa Rican Social Security Fund (CCSS) was established in 1941; Water and Sanitation (AyA) are also public services provided by the government. And the services and penetration they provide rank among the best in the world.

However, they are not without fault. Once a service was nationalized, they became riddled with bureaucracy. This has been the case for ICE, CCSS, and AyA. Most famously is known the case of the Costa Rican Oil Refinery (RECOPE), nationalized in the seventies, for being considered a strategic economic activity. As a consequence, now Costa Ricans pay the highest price for gas and diesel in the region (CentralAmericanData.com, 2018).

This alternative would also require an increase in government spending in order to assume the purchase of buses and their repair and maintenance, bus driver salaries, logistics and infrastructure, among many other costs. Current government expenditure is already at an all time high, with the population demanding fiscal cutbacks but the government instead increasing taxes.

Limitations and Barriers

Implementation Costs

Currently, the Public Works and Transportation Ministry (MOPT) receives around \$700 million, which represents less than 4% of the National budget. Most of these resources are earmarked for road and pavement maintenance, as well as salaries and administrative costs. Furthermore, a project proposal to cut back the MOPT's budget was approved in 2018, representing 12% of the previous budget (Salazar, 2018). Having a budget of such size impedes significantly the ability of the Ministry to execute any kind of new policy, or propose anything original, without being absolutely certain its execution will be flawless and unopposed.

Timing

It is of vital importance for this strategy that the points explained in this memo are completed before concession contracts expire in 2021. Service providers must be primed and incentivized, and given enough time to make the proper changes and arrangements. The government as well must complete the necessary processes in order to be ready to hit the ground running as soon as all concessions expire.

Political Implications

Worker unions in Costa Rica are a strong political force. Historically, many government efforts have been boycotted by unions who feel their privileges endangered. It is vital to anticipate and consider their reactions, and even involve them into the process to decrease their possible pushback. Even though the implementation could benefit union members, they will protect the status quo by force. Initially, there will be strong opposition, as union members believe they will be losing jobs. However, it is very important to explain that it is possible that no bus routes will be lost, they just will be shortened and kept outside of the downtown area, and how they actually stand to gain from sectorization.

Conclusion

If the government is truly committed to the improvement of the country, as well as to the goal of decarbonizing the economy, then it must focus on effectively implementing a bus route sectorization. Most of the proposed courses of actions included in the Decarbonization plan do not align with the UN's SDG, since they promote the consumption of costly technologies and shift the cost of implementation on the population.

In order to successfully execute the sectorization of bus routes, three courses of action must be followed. First, a couple of changes to the Bill 3503 must be proposed through the Legislative branch in order to release the market for bus service providers, as well as to avoid providers from becoming entrenched in their routes.

Second, the CTP, as a branch of the Executive Power, must work on preparing better concession contracts and concession contract conditions. These conditions will aid in shifting the service demand risk from being assumed by the government to being assumed by the concessionaires, who will now have an incentive to increase consumer demand. Using concession contracts will also provide the CTP a mechanism to ensure the construction of the hub stations the sectorized bus routes will need, while avoiding having these projects go through the public project process.

Finally, the ARESEP, an independent public institution loosely affiliated to the Executive power, must improve its management processes. Hiring a consulting firm to assess the implementation of better Business Process Management could bring considerable benefits to the institution and consequently to quality of the public service regulation.

Sectorization may seem like a simple enough reorganization of bus routes in the Greater Metropolitan Area, but it has proven to be surprisingly gridlocked by bills and institutions supposed to improve the quality and reach of public

services. Nevertheless, it is possible to unlock the bureaucratic inertia, and generate environmental impact without colossal investment.

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