



FIJI COMMERCE COMMISSION

HEAD OFFICE & CENTRAL EASTERN

DIVISION

Level 1 Garden City Complex, Raiwai,
Suva.

P O Box 5031, Raiwaqa, Suva.

Phone: (679) 337 2178

Fax: (679) 337 2389

Email : helpdesk@commcomm.gov.fj

Website: www.commcomm.gov.fj

WESTERN DIVISION

1st Floor, Downtown Holdings Bldgs,

155 Vitogo Parade,

P O Box 594, Lautoka

Telephone/Fax: (679) 666 1853

NORTHERN DIVISION

Corner of Nanuku/Jaduram Street,

P O Box 262, Labasa

Telephone/Fax: (679) 881 1155

Authorisation on Interoperability Fees

For

The Provision of E-Ticketing Services For the Bus Industry in Fiji

Date Issue: 29 December 2014

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"To Promote Competition in the Fijian Markets"

1.0 Introduction

- 1.1 The transport sector plays an important and critical role in the overall growth and development in any economy (Samina, *et. al.*, 2012) and Fiji is no exception.
- 1.2 While payments for purchases of goods and services are now possible via electronic money transfer (mobile money), without the need for face to face contact and physical exchange, goods still needs to be physically transported to consumer's location. Hence, the role of transportation will not diminish, but rather, increase in importance for economic growth, socio-economic development and facilitation of trade.
- 1.3 A proficient transport sector cuts down the cost of transportation thus contributes directly to country's international competitiveness. This sector is seen as a binding constrain which acts as an enhancing agent for the rest of the real sectors of the economy by opening up new market opportunities thus moving products and services with speed and efficiency.
- 1.4 By ensuring greater availability of goods and services, adequate provision of transport infrastructure and services helps in increasing productivity and lowering production costs.
- 1.5 The transport system in Fiji comprises of roads, rail, water and air. The international routes to outside world are by water and air. Fiji has its own Airline for air transport services for both within and outside Fiji. Local shipping companies service the maritime area while international shipping companies provide the link between Fiji and the rest of the world.
- 1.6 For local transportation needs, Fiji largely depends on her road network for bulk of her exports and imports to and from domestic sea ports. With respect to road transport, it is serviced by private Cars, Taxis, Rental and Hire cars, Heavy Goods vehicles, Buses, Tractors, and Motor Cycles.
- 1.7 Of particular interest to policy makers is the Bus transport system due to the obvious benefits to reduction in fuel import bill, reduction of air pollution and lessening of road congestion.
- 1.8 The cost of transportation of goods, people and services has an important bearing on the final product and thus the cost of living. These costs are dependent on a number of factors, those which are beyond our control and those which can be within our control.
- 1.9 Those factors, beyond our control include, in a small developing country, fuel and spare part costs. Given that these are all imported, price changes are beyond the control of the transport owner. However, what could be within the control of the Bus companies is pilferage. This reduces the margin of the Bus Companies thus raising pressure to call for Bus fare increase.

- 1.10** It is in this regard and due to several other factors that the Government of Fiji announced the compulsory implementation of an e-ticketing system which not only will protect the Bus Companies from losing their rightful income, but also will provide the Government, data on the correct income of the Bus Operators and thus ensures correct tax collections.
- 1.11** In its effort to get the E-Ticketing Services off the ground, the government has initiated the process of documenting the conduct and requirements for the provision of E-Ticketing via the Minimum Standards Requirements ("MSR") and also getting the National Switch up and running.
- 1.12** Since the front end services and the network utilised for the provision of the E-Ticketing services will be facilitated by the Telecommunications Stakeholders in Fiji, and the Telecommunications industry being declared as a regulated industry pursuant to Section 4 of the Commerce Commission Decree 2010 ("CCD2010"), Commission's involvement in determining the fees and charges to facilitate interoperability is of essence, with a legal basis for the intervention.
- 1.13** It is in this regard and against the backdrop of the government's objective to get the Provision of the E-Ticketing Services operational, the Commission has made this authorisation, pursuant to Section 41 of CCD2010 in regards to the fees and charges of interoperability for the Solution Providers and the Network Users engaged in the provision of the E-Ticketing services.
- 1.14** The Commission on 7 March, 2014 following consultation with the stakeholders made the authorisation on the Interoperability fees for the provision of e-ticketing services for the bus industry in Fiji.
- 1.15** The authorisation stipulated that the authorised rates will be in effect till new rates are announced in January 2015. This announcement will be subject to a review to be undertaken in December, 2014.
- 1.16** In recognition of this, the Commission wrote to the stakeholders, including the Solution Providers, Fiji Bus Operators Association and individual bus companies on 28th November, 2014 requesting them to make submissions.
- 1.17** Following the receipt of submissions and after an independent assessment by the Commission, the authorisation on the Interoperability fees for the provision of e-ticketing services for the bus industry in Fiji effective from January, 2015.

2.0 Background

2.1 In 2012, the Ministry of Transport announced that it is mandatory for all Bus Companies to install E-ticketing system in their buses and for the system to come into operation by 2013. In a recent announcement, the Ministry noted the following as the objective of the project (Natuva, 2013:2):

- Require and regulate the use of tickets for Fiji's road permit holders with the intention of collecting of revenues through that system and reducing fare evasion and the risks for passengers carrying cash;
- Remove revenue losses for public transport operators and the state;
- Clarify contractual arrangements in relation to tickets; and,
- Prescribe conditions and enforcement powers in relation to tickets.

2.1 The Ministry of Transport called for expression of interest from potential providers of FrontEnd solution and Back End service provider.

2.2 Front End Solution providers bring in the physical console along with the technology (solution) that will enable (with the use of mobile SIM cards in terminals on buses), interfacing of the travelling public with the installed technology, processing of electronic transactions, data encapsulations and storage.

2.3 The Back End provider will use its electronic platform to transmit data stored in the card to mobile companies' database, transmit volume of transaction made to solution provider and the bus companies thus enabling the solution provider, bus company and FIRCA to lay claims on their share of the total volume of transaction. Therefore, using the solution installed, the Backend provider will be in overall in charge of the management of electronic databases.

2.4 Following some discussion and submissions from Fiji Commerce Commission, the market for E-ticketing services was opened up for any licensed firm to provide back end and front end solution.

2.5 With the opening of the E-Ticketing market, it became mandatory that the systems installed by the various Solution Providers must be interoperable and in recognition of its obligations under the Commerce Commission Decree 2010, the Commission has a legal authority to authorise the prices (in this case fees and charges) for the facilitation of the interoperability functions of the E-Ticketing Services.

3.0 Legal Framework

3.1 Under Section 4(1) of CCD2010, “regulated industry” means-

- (a) an industry engaged in the supply of electricity, water, sewerage, post, broadcasting, telecommunications, ports or civil aviation services; or
- (b) Any other industry that is declared under Section 5 to be a regulated industry.

Thus, telecommunications is a regulated industry under the Commerce Commission Decree 2010 (“CCD2010”). Since the Telecommunications network will be utilized for the purpose of providing the E-ticketing Services, the provision of E-Ticketing services falls within the definite of regulated industry and ambit of the Commission.

3.2 The Commerce (Control of Prices of Interconnection Services Rates) Order 2012 empowers the Commission to control the prices or rates for the supply of Interconnection Services in all quantities and qualities, grades or classes for three (3) years until 24 October 2015.

3.3 Interconnection for the purpose of the E-Ticketing services has been taken as the Network usage of one Telecommunications network operator by another for the provision of the services and the associated fees and charges.

3.4 Telecommunications Industry in Fiji meets the definition of Regulated Industry under Section 4 of CCD2010 and by virtue of the Commerce (Control of Prices of Interconnection Services Rates) Order 2012, the interoperability requirements of the Service Providers, the interoperability fees and charges are the controlled services, and for the purpose of this authorization, the legal authority to determine such fees and charges is bestowed to the Commission under Section 41 of CCD2010.

3.5 Section 41 of CCD2010 on states that Controlled goods or services not to be supplied except in accordance with authorised price and reads:

s41.-(1) A person must not supply any controlled goods or services unless a price for those goods or services has been authorised by the Commission and the goods or services are supplied in accordance with the authorisation.

(2) A provision of a contract, and any covenant, in contravention of subsection (1) is unenforceable.
(3) Any person who acts or aids and abets another person to act in contravention of this section is guilty of an offence with a maximum fine of \$50,000.

3.6 The Commission is fully committed to fulfilling its functions and duties under the CCD2010 and the Telecommunications Promulgation 2008.

3.7 Furthermore, Section 3 of the Telecommunications Promulgation 2008 states:

“3. The objectives of this Promulgation are to provide a regulatory framework for telecommunications that promotes the long term interests of end users of telecommunications services, or of services provided by means of telecommunications services, and the efficiency and international competitiveness of the telecommunications industry in Fiji and, as consistently with that objective as is practicable

- (a) to provide rapid expansion of reliable and as affordable as possible telecommunications services on an equitable basis, with particular improvement in rural areas;*
- (b) to promote efficient investment and innovation in telecommunications networks and services;*
- (c) to provide fair competition among service providers and allowing market forces to operate; and*
- (d) to provide and promote appropriate consumer protection and other safeguards in relation to telecommunications services where market forces are insufficient”.*

3.8 Section 43 C, Under Part 5A of CCD2010 in relation to the performance of the Telecommunications Services regulator functions by the Commission, the Commission is required to ensure procedural fairness. Section 43 Reads:

43C. *In performing its functions and exercising its powers under this Part, each of the Commission must observe the following -*

- (a) act transparently and fairly;*
- (b) consult in good faith any person who is or is likely to be affected by any action or decision including any Ministry, department, other government entity or any commercial, industrial, consumer and standards body;*
- (c) give all such persons the opportunity to make submissions and be heard;*
- (d) consider evidence adduced at any such hearing and to the matters contained in any such submissions;*
- (e) give reasons in writing for each decision and substantiate such decisions with reference to the objectives in section 2, its functions and powers, and the factors in section 15.*

3.8 The Commission in recognition of the requirements under Section 43C of CCD2010, consulted the Solution Providers, Network operators, Fiji Bus Operators Association, other Bus Operators and the Ministry in good faith.

4.0 The Process

- 4.1 Following the decision made for the Commission to determine the relevant fees and charges of interoperability for the provision of E-Ticketing Solutions, and in recognition of the requirements under Section 43C of CCD2010, the Commission conducted various meetings with the Solution Providers and the Bus Industry players to discuss the issue. In particular, the Commission consulted the stakeholders to identify the relevant fees and charges, the methodology to determine the relevant fees and charges and the quantum of such fees and charges for E - Ticketing system for the Bus industry in Fiji.
- 4.2 The Commission met the Solution Providers, namely; Vodafone Fiji Limited ("VFL"), Digicel (Fiji) Ltd ("DFL") and Bula My Fiji on 9th January, 2014. During the meeting the draft authorization by the Commission was discussed and the stakeholders were explained the relevant fees and charges that falls under the Commission's jurisdiction, the methodology used by the Commission in determining the draft fees and charges and the quantum of such fees and charges. The Commission's identification of the relevant fees and charges and the methodology was accepted by the Solution Providers. The solution providers were provided with an emailed copy of the draft authorization and given opportunity till 14th January, 2014 to analyses the same and provide feedback to the Commission during the next meeting, scheduled for 15th January, 2014.
- 4.3 On 10th January, 2014, the Commission met the representatives of Fiji Bus Operators Association ("FBOA") and other bus operators to discuss the draft authorization. The stakeholders were explained the relevant fees and charges that falls under the Commission's jurisdiction, the methodology used by the Commission in determining the draft fees and charges and the quantum of such fees and charges. The Bus Operators showed support for the Commission's draft authorisation.
- 4.4 The Commission met the Solution Providers again on 14th January, 2014 to obtain their feedback on the draft authorisation that was provided to the by the Commission on 9th January, 2014.
- 4.5 During the meeting held on 14th January, 2014 some concerns were raised regarding the basis of calculating the Solution Providers fees and charges. It was suggested by one solution provider that the fees and charges to be paid to the solution providers should be set as a percentage of the gross fare and not as cents levied on "per passenger per tap" as proposed by the Commission. The Commission advised the solution provider that it will assess the written submission and incorporate the relevant changes (if any) in the final authorisation by the Commission.

4.6 On 29th January, 2014, the draft authorization was circulated to FBOA and other bus operators throughout Fiji for their comments and suggestions. The deadline for FBOA to make submissions was 5th February, 2014.

4.7 FBOA made its written submission to the Commission on 5th February, 2014.

4.8 The Commission analyzed FBOA's submission and met with FBOA Executive's on 13th February, 2014 to discuss the draft authorization and clarify issues raised by FBOA.

4.9 During the meeting held on 13th February, 2014, FBOA proposed that the charges should be staggered to have one charge for Stage 1 and 2 and from stage 3 be a different charge due to the nature of transactions involved in higher stages vis-à-vis the lower stages. FBOA was also advised and explained as to why the Bus Operators have to bear these charges.

4.10 The Commission advised FBOA to make a formal submission on this for consideration.

4.11 FBOA made another written submission on 18th February, 2014.

4.12 The Commission assessed FBOA's submission and advised them of the proposed changes to the draft authorization via email on 24th February, 2014 and asked FBOA to comments on the same.

4.13 The FBOA again made an email submission arguing their position on:

- 4.13.1 That they want the fees to be based on cents per Card tap on the console rather than a % of the interoperable revenue as suggested by the Commission;
- 4.13.2 That they should not be asked to pay any additional fee for any services provided to them by the solution providers; and,
- 4.13.3 That they agree with the Commission that there is no need to have a separate network user fee.

4.14 The Commissions response to the three points raised by FBOA were as follows:

- 4.14.1 On cents vs % of revenue: The Commission notes that FBOA is contradicting its own agreement with its solution providers. In their agreement with their solution providers, they have the fees based on a % rather than cents. The Commission will also provide in detail why there is economic logic to have the fees set based on a % of interoperable revenue rather than cents per tap;

4.14.2 On the second issue of FBOA not willing to pay any additional fee, we agree. The proposal by the Commission will result in FBOA paying **not more but less** than what the scenario would be if there was a single solution provider in the market;

4.14.3 On the third issue of network user fee, the Commission has removed this.

4.15 The Commission on 7th March 2014 released the final authorization of the interoperability fees for the provisions of E-Ticketing Services for the Bus Industry in Fiji.

4.16 The authorisation stipulated that the authorised rates will be in effect till new rates are announced in January 2015. This announcement will be subject to a review to be undertaken in December, 2014.

4.17 In recognition of this, the Commission wrote to the stakeholders, including the Solution Providers, Fiji Bus Operators Association and individual bus companies on 28th November, 2014 requesting them to make submissions.

4.18 Based on the legal framework, consultation with the relevant stakeholders and the objectives of the E-Ticketing services, the Commission has made the revised authorization as in Section 6 below to be effective from January, 2015.

5.0 Commission's Analysis

5.1 The Commission pursuant to Section 4 and 41 of CCD2010 and the Commerce (Control of Prices of Interconnection Services Rates) Order 2012, the Commission made the following authorization on the interconnection charges on 7th March 2014 for the provision of E-Ticketing Services:

5.1.1 **The Interoperable fee rate is 1.5%.**

5.1.2 **The interoperable solution provider fee to be paid by the bus operators/companies will be 1.5% of the INTEROPERABLE REVENUE ONLY.**

5.1.3 The Own Solution Provider fee rate is as per the bus companies own agreements.

5.1.4 Bus Operators will be required to pay to their own solution provider, fees as per their individual agreements. However, this fees and charges will only be applicable on the OSPR which is **Total Revenue minus the Interoperable Revenue**. That is the payments to their solution providers as per the agreement will be calculated as:

Payment to own Solution Provider= (Total Revenue – Interoperable Revenue)* Agreed Rate with Own Solution Provider

5.2 When the transaction occurs utmost three parties may be involved;

- The Card provider;
- The Console Provider; and
- The Solution provider

5.3 However, the business models and transaction costs between the card provider, the console provider and solution provider may differ. Hypothetical example has been produced below:

- **Example 1:** Company A may be a card provider, console provider and the solution provider; e.g Digicel Fiji Ltd;
- **Example 2:** Company B may be a card provider and solution provider while Company C may console provider; e.g Vodafone Fiji Ltd (Card and solution provider), while Fonelogy may be console provider;
- **Example 3:** Company B may be a card provider and console provider while Company D may be the solution provider; e.g. BulaMy (Fiji) (Card and console provider), while Digicel or Vodafone may be solution provider.

5.4 Using example 3 as the case study analysis and taking into account the current authorized rate of 1.5%, the carder provider will generate 1.5% of the total interoperable revenue and will have to bear the following activity cost (to name few);

- Fare collection, marketing costs, paying commission to resellers, reconciliation of fares, maintenance of cards and console, system availability of SLA's and bearing the wear and tears of console machines.

5.5 Taking the estimate marketing cost and commission payment to resellers estimated to be 1 per cent per transaction, the card provider will generate a net income of 0.5%.

5.6 The above assessment demonstrates that the card holder is compensated for the provision of services while there may be little or no compensation for the use of console. For example, if we use the analogy of activity based costing and should there be three players for one transaction (Vodafone been the carder holder, BulaMy – console provider and Digicel been the solution provider) than the bus operators will be paying for the services of the usage of card only.

5.7 In view of the above, the Commission has reviewed the existing authorization to make an allowance for the use of the console. This fee has been computed as **0.5% of the INTEROPERABLE REVENUE ONLY.**

5.8 This will not be an additional cost to the bus companies since the bus operators are in agreement to pay Own Solution Provider fee of as high as 4.5%. This will result in 2.5% savings for the bus companies.

6.0 Commission's Authorization of Interconnection Charges For E-Ticketing Services

6.1 The Commission notes that the Total Revenue (TR) of a Bus Company will consist of:

- 6.1.1 Own Solution Provider Revenue (OSPR): This is the fare revenue collected by retail outlets linked to the Bus Company's own solution provider. For example, Tebara Bus Company has Solution provided by Micro Electrica and revenue collected by retail outlets linked to Digicel and their solution providers. Similarly, another Bus company may have their solution provider Fonology and revenue collected by retail outlets linked to Vodafone and their solution providers.
- 6.1.2 Interoperable Revenue (IR): This is the fare revenue generated via the use of a competitor's E-Ticketing card on the bus company with its own solution provider's console and solution.
- 6.1.3 Therefore, Total Revenue (TR) = Own Solution Provider Revenue (OSPR) + Interoperable Revenue (IR).

6.2 Pursuant to Section 4 and 41 of CCD2010 and the Commerce (Control of Prices of Interconnection Services Rates) Order 2012, the Commission makes the following amended authorization on the interconnection charges for the provision of E-Ticketing Services:

- 6.2.1 The Interoperable fee rate is 2.0%.
- 6.2.2 The interoperable solution provider fee to be paid by the bus operators/companies will be 1.5% of the INTEROPERABLE REVENUE ONLY.
- 6.2.3 The interoperable infrastructure fee (for the use of console) to be paid by the bus operators/companies will be 0.5% of the INTEROPERABLE REVENUE ONLY.
- 6.2.4 The Own Solution Provider fee (including provision of console service) rate is as per the bus companies own agreements.
- 6.2.5 Bus Operators will be required to pay to their own solution provider, fees as per their individual agreements. However, this fees and charges will only be applicable on the OSPR which is **Total Revenue minus the Interoperable Revenue**. That is the payments to their solution providers as per the agreement will be calculated as:

Payment to own Solution Provider= (Total Revenue – Interoperable Revenue)* Agreed Rate with Own Solution Provider

- 6.2.6 For guidance, the stakeholders may refer to appendix 1 for a worked out example.

6.3 No other fees and charges for the interoperability function should be levied unless authorized by the Commission.

6.4 The above authorization will come into effect from 1 January, 2015.

6.5 The authorization will remain in force until earlier revoked, repealed or varied by the Commission.

7.0 Board's Approval


Mr. Firoz Ghazali
Acting Chairman
29 December 2014

Date Issue: 29 December, 2014

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Appendix 1: Worked Out Example

For clarification purpose, payments to the Solution and Infrastructure Provider are to be computed as follows:

- A bus has a seating capacity of 60 passengers and on a particular trip the bus is full to the capacity.
- The bus route is for Stage 1 and the regulated bus fare for stage 1 is \$0.70.
- The bus has Solution Provider A's Console installed.
- There are three solution providers in the market, A, B and C.
- On this particular trip, out of the 60 traveling passengers, 20 have Company A's Card. 20 have Company B's card and 20 use Company C's card.
- Payments to Company A, B and C by the bus company will be calculated as follows:

Card / Console Provider	Number of Passengers	Total Revenue	Interoperable Revenue / Payments by Bus Company
A	20	\$14	<p>Interoperable payment = Nil</p> <p>Payment to A will be as per the agreement between the Bus company Solution Provider A. Assuming the rate has been set as 4.5% as per agreement. Payments to A will be as follows:</p> $\begin{aligned} \text{Payment to A} &= (\text{Gross Revenue} - \text{Interoperable Revenue}) * \text{Agreed rate} \\ &= (\text{Total Rev for the Trip} - \text{Interoperable Rev}) * \text{Agreed rate} \\ &= \{ (60 * 0.70) - (40 * 0.70) \} * 4.5\% \\ &= (42 - 28) * 4.5\% \\ &= 14 * 4.5\% \\ &= \$0.63 \end{aligned}$
B – Card Provider	20	\$14	<p>Payment to B = Interoperable Revenue * FCC Authorised Rate</p> $\begin{aligned} &= (20 * 0.70) * 1.5\% \\ &= \$14 * 1.5\% \\ &= \$0.21 \end{aligned}$ <p>(4.5% Payment to A does not apply for this portion of the revenue)</p>
B 1 – console provider			<p>Payment to B 1 = Interoperable Revenue * FCC Authorised Rate</p> $\begin{aligned} &= (20 * 0.70) * 0.5\% \\ &= \$14 * 0.5\% \\ &= \$0.07 \end{aligned}$
C - Card Provider	20	\$14	<p>Payment to C = Interoperable Revenue * FCC Authorised Rate</p> $\begin{aligned} &= (20 * 0.70) * 1.5\% \\ &= \$14 * 1.5\% \\ &= \$0.21 \end{aligned}$

Appendix 1: Worked Out Example (cont'd.....)

Card / Console Provider	Number of Passengers	Total Revenue	Interoperable Revenue /Payments by Bus Company
C 1 – console provider			<p><i>(4.5% Payment to A does not apply for this portion of the revenue)</i></p> <p>Payment to C= Interoperable Revenue * FCC Authorised Rate</p> <p>= (20 *0.70) *1.5%</p> <p>= \$14*1.5%</p> <p>= \$0.21</p> <p><i>(However, it is assumed that there will be only one console provider per bus, either A1, B1 or C1. The examples produced are illustration only.)</i></p>
Total Revenue for the Trip = $60 * 0.70 = \$42.00$			
Total payments by the Bus Company for the Trip = Payments to A, B and C			
= \$0.63 +0.21+0.21			
= \$1.05			
Add provision of console service			
= $(40 * 0.70) * 0.5\%$			
= \$0.14			
Total Cost per trip			= \$1.19