Organismo Supervisor de Inversión Privada en Telecomunicaciones

The Peruvian Experience in the Liberalization of Telecom Services: Interconnection Issues

Los Angeles, March 2000

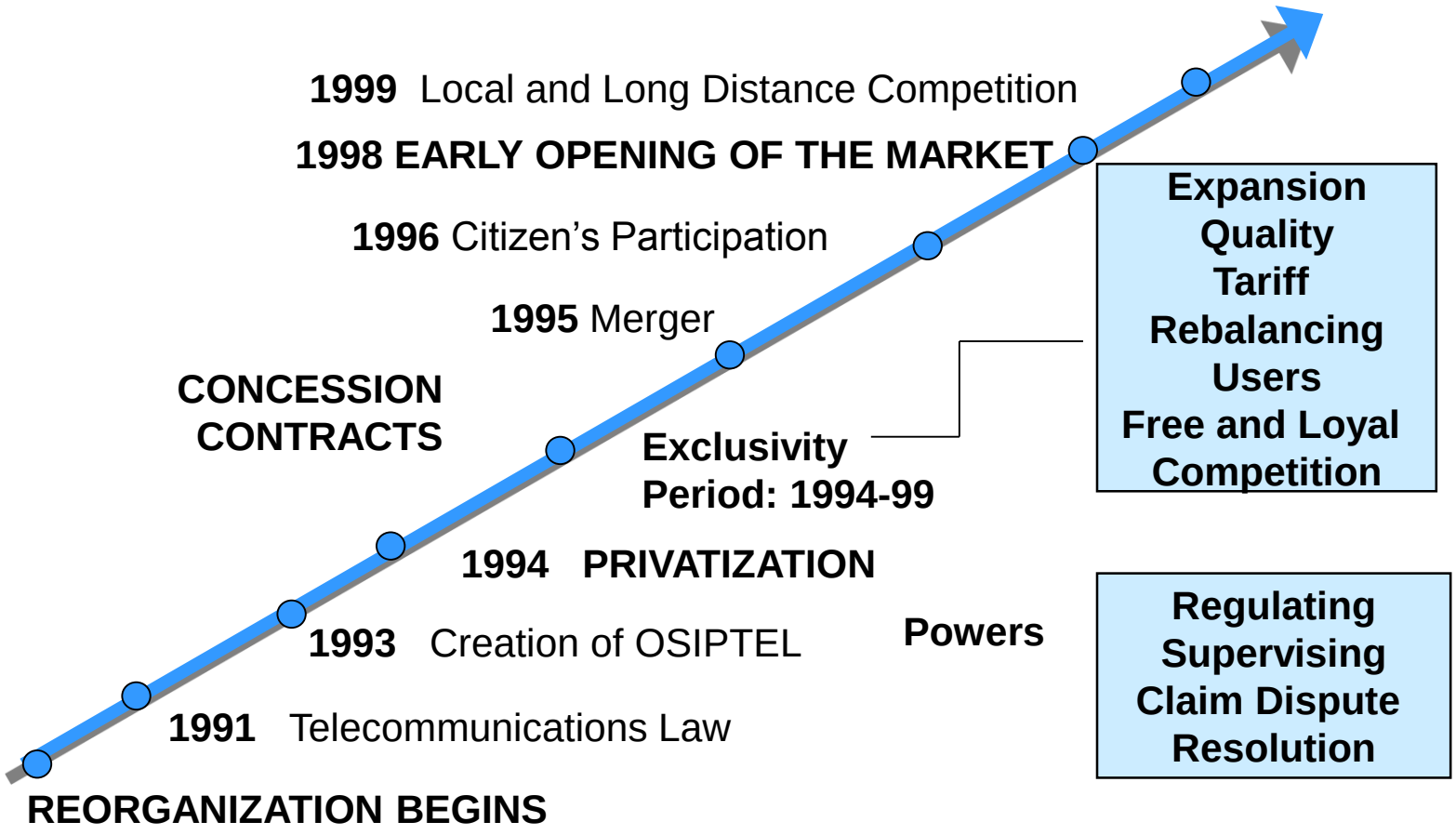
Website: http://www.osiptel.gob.pe

Peru's Outline

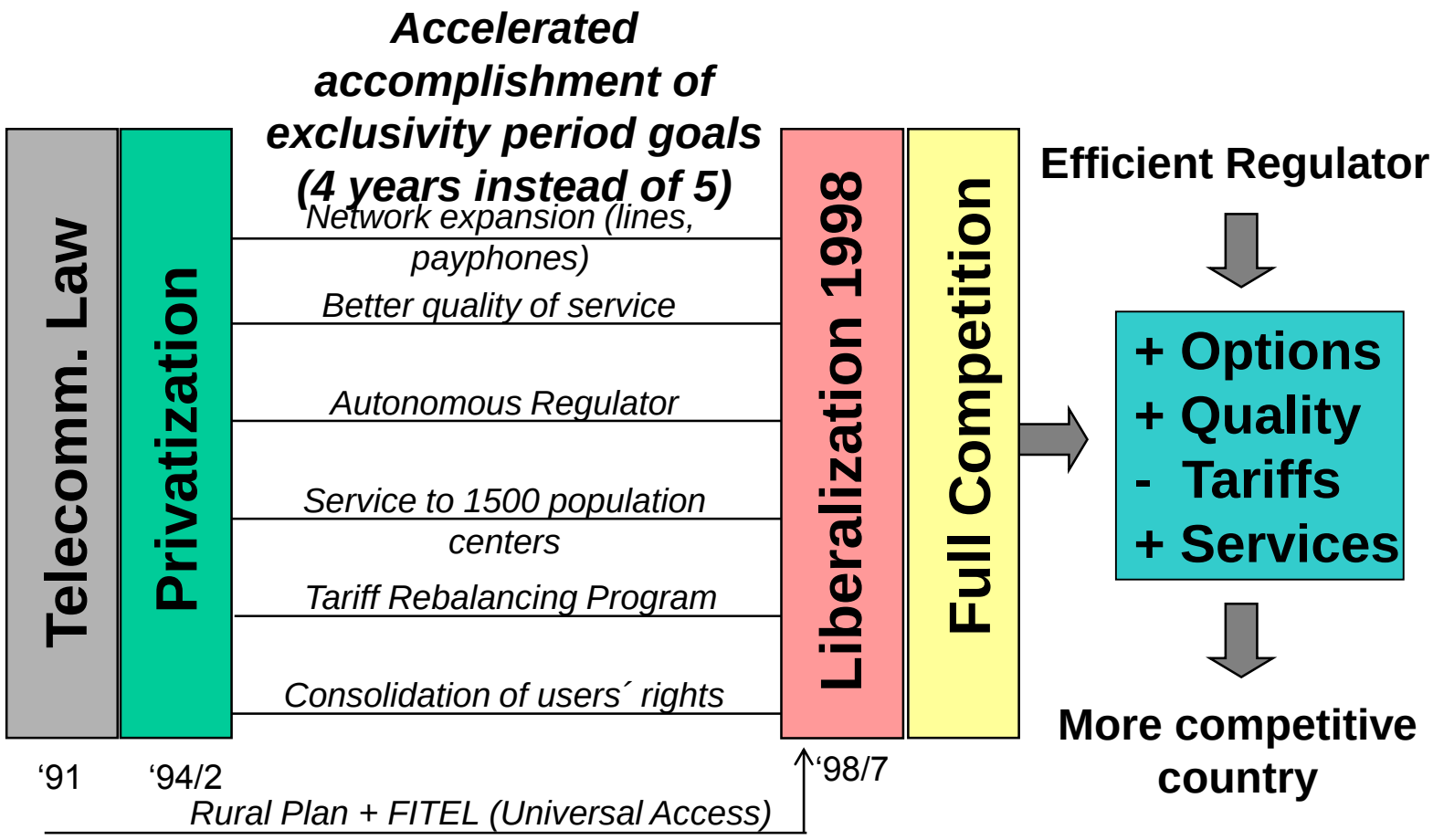
• Population	:	25 million
• Capital City	:	Lima
• Currency	:	Nuevos Soles
• GDP	:	57.1 US$ billions
• GDP growth	:	3.8% (1999)
• Inflation	:	3.7% (1999)
• Devaluation	:	7%
• Fiscal Balance	:	-2.6% of GDP(1999)
• Telephone lines	:	2.1 million
• Fixed telephone density	:	8%
• Cellular phones	:	1'000,000
• Digitalization of Network	:	90%

*Source: Commission for the Promotion of Peru 1999

The Process for Reorganizing the Telecommunications Market



From Monopoly to Competition



From Exclusive Service to Service for all

BEFORE

- Low number of lines in service
- The disbalance on tariffs did not give incentives to the expansion of the services.
- High cost of access to telecommunication services: In the resale market, the price of a telephone line was over US$1,500
- Average waiting time: 118 months
- Users rights were not protected
- Conventional services
- Long Distance: One provider
- Local tariffs: Only inside the cities

NOW

- The access of population to telecommunications services is supported.
- Tariff rebalancing gives incentives to expand the services and attracts more competitors.
- The cost of accessing the service lowers to US$160.
- Average waiting time: 2 months
- Users have standards and instances to enforce their rights
- New services and solutions: popular telephone, different cellular tariff plans, etc.
- Long Distance: Competition
- Local tariff: Inside the department

More and Better Services

	1993	1999
Telefonía fija (miles)	660	2,000
Telefonía móvil (miles)	50	1,000
Densidad telef. Fija	2.9	7.94
Densidad telef. Móvil	0.2	3.67
Densidad total telef.	3.1	11.61
Fixed telephony average waiting time	118 months	2 months
Fixed telephony conection fee	US$ 1,500	US$ 160
Public telephones	8,000	57,440
Cable television	30,000	350,000
Internet Users	n.d.	+ 500,000
Network digitalization	33%	90%
Fiber optic (Kms.)	200 km	3,000 km
Villages with telephone service	1,450	3,000
Cities with cellular telephony	7	117
Number of telecommunication companies	12	171
Value Added Services Authorizations	0	140
Employment in the sector	13,000	34,000

* Source: The companies

Concessions and Registrations Granted

Public Telecommunication Service Concessions			
Granted	**1994**	**August 1998**	**March 2000**
Long distance carrier	1	1	35
Local carrier	1	4	11
Fixed telephony	1	1	5
Mobile	3	4	4
Paging	7	32	38
Trunking	0	12	13
Cable Television	4	51	99
MMDS	0	3	3
Mobile Satellite	0	2	2
Data transmission	0	1	1
TOTAL concessions	17	111	211

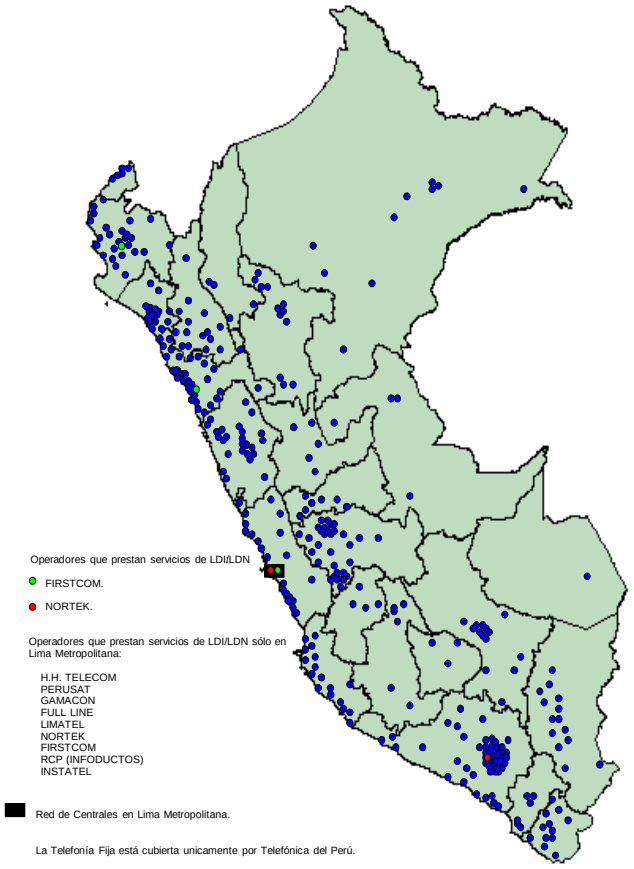
Registrations of Value Added Service Granted			
Registered enterprises	3	103	142

Interconnection Status

Interconnection agreements	9
Awaiting for a mandate of OSIPTEL	4
Under negotiation between companies	41
Under evaluation	5
TOTAL	**59**

PLACES WITH MOBILE TELEPHONE SERVICE

PLACES WITH FIXED TELEPHONE AND LONG DISTANCE SERVICE



The Concept of Interconnection

- Interconnection is a set of agreements and rules which main objective is to allow the communication of users of different networks.
- The concept of interconnection involves physical aspects as well as the interoperability of services.
- Interconnection is an obligation, this includes an open access to the network, its infrastructure and services.

Economic Features of Interconnection (1)

- Interconnection facilitates the formation of network externalities.
  - Due to network externalities, firms benefit from the usage of the network by other business related firms.
  - These externalities can help firms to reduce their transaction costs. Also, users of telecom services can benefit from the usage of the network by other users.
  - Since both consumers and firms benefit, social welfare improves.

Economic Features of Interconnection (2)

- Interconnection allows the development of competition in different markets.
  - Interconnection, per se, is indispensable for the existence of competition in different services and in different markets.
  - For the above reason, there must be an open access to the network.
  - Interconnection is an essential facility. All firms who asked for it must have it.

Legal Framework

- Act of Telecommunications *(1993)* **(Congress)**
- Rules of the Act *(1994)* **(Supreme Decree)**
- Privatization of LEC and LD *(1994)* **(Contract)**
- Market Opening Guidelines *(August,1998)* **(Supreme Decree)**
- OSIPTEL´s regulations about Interconnection *(January, 1998)* **(Board of Directors - OSIPTEL)**
- Complementary regulations about Interconnection *(July,1999)* **(Board of Directors - OSIPTEL)**

Some features of the Peruvian telecom market (1)

- Market dominance in fixed telephone services

  - At present, in the market for fixed telephone services, there are only two operators providing it. One company in the local telephone market and two companies in the payphone market.

  - There are, however, five firms that have the license to operate in the fixed telephone market.

  - The existence of only one operator in the fixed local telephone market gives this firm an advantage over other firms operating in other markets.

  - This advantage is more evident whenever these other operators need to make use of the local network to provide their telecomunication services.

Some features of the Peruvian telecom market (2)

- Thus, the firm providing fixed local telephone services has a dominant position in both the market for local and for public telecommunication services.

↖ Thus, including public telephone services, there is low intensity in the competition for fixed local services.

↖ There is rivalry between the dominant firm and new entrants.

- Therefore, including payphone services, it can be said that, at this time, the competition in fixed local services is low.
- At the same time, due to the need for using the local network to provide other telecommunication services and due to the presence of the local operator in these other services, there is a rivalry or an open conflict of interests between the dominant firm (the local operator) and the new operators.

The Interconnection Negotiation Process (1)

- **First**:
  - The contracting parties enter into a negotiation process. Only after 70 days of negotiation one of the parties can require interconnection in a formal way.
- **Second**:
  - When the parties reach an agreement, they notify it to the regulator, who has 30 days for announcing his opinion. The agreement could be observed or approved. In both cases the administrative procedure of negative silence applies.
- **Third**:
  - If the parties do not reach an agreement or if do not consider into their contract the observations previously made by the regulator, then, the regulator publishes an interconnection order (mandate - first instance).
  - This interconnection order could be appealed to the President of the Board of Directors (second instance). The third instance is the Supreme Court.

The Interconnection Negotiation Process (2)

- Both, an agreement or an interconnection order, must have detailed information about three aspects: Economic, Legal and Technical.

- Economic aspects, such as, access charges of terminating calls (fixed and/or mobile), adaptation costs, dedicated circuits costs, transport charge (national long distance), etc.

- Technical details are considered in a appendix. The main issues are: points of interconnection, call termination, signaling, numbering, co-location, transport, routing, quality of service, number of E1, technical specifications of the equipment, etc.

Regulation Principles for Access Charges

- Cost Oriented to Long Run Incremental Cost
- Non discriminatory: charges and practices
- Absence of Cross Subsidies
- Transparency in information about charges
- Non predatory behavior

Access Charge to the Network (1)

- As part of the interconnection process, access charges are negotiated by the operators
- If operators do not reach an interconnection agreement, then, OSIPTEL fixes the amount of interconnection charges.
- OSIPTEL do this by following up the regulatory principles for access charges.

Access Charge to the Network (2)

- According to the Peruvian Law (a Supreme Decree) the access charge is unique within the same local area.
- The charge for originating/terminating a call in the local wireline network is set by a price cap, which is, right now, US$ 2,9 cents per minute.
- The charge for originating/terminating a call in the local wireless network is not regulated. Right now it is about US$28,0 cents per minute
- Local transit charge is about US$1,6 cents per minute
- Carrier pre-selection cost is US$ 0,26 cents per minute. It applies only to all long distance outgoing calls.

Controversial Issues

- Access charges to local networks:
  - Wireline networks (origination/termination charge)
  - Wireless networks (termination charge)
- Costs for adapting the network due to interconnection.

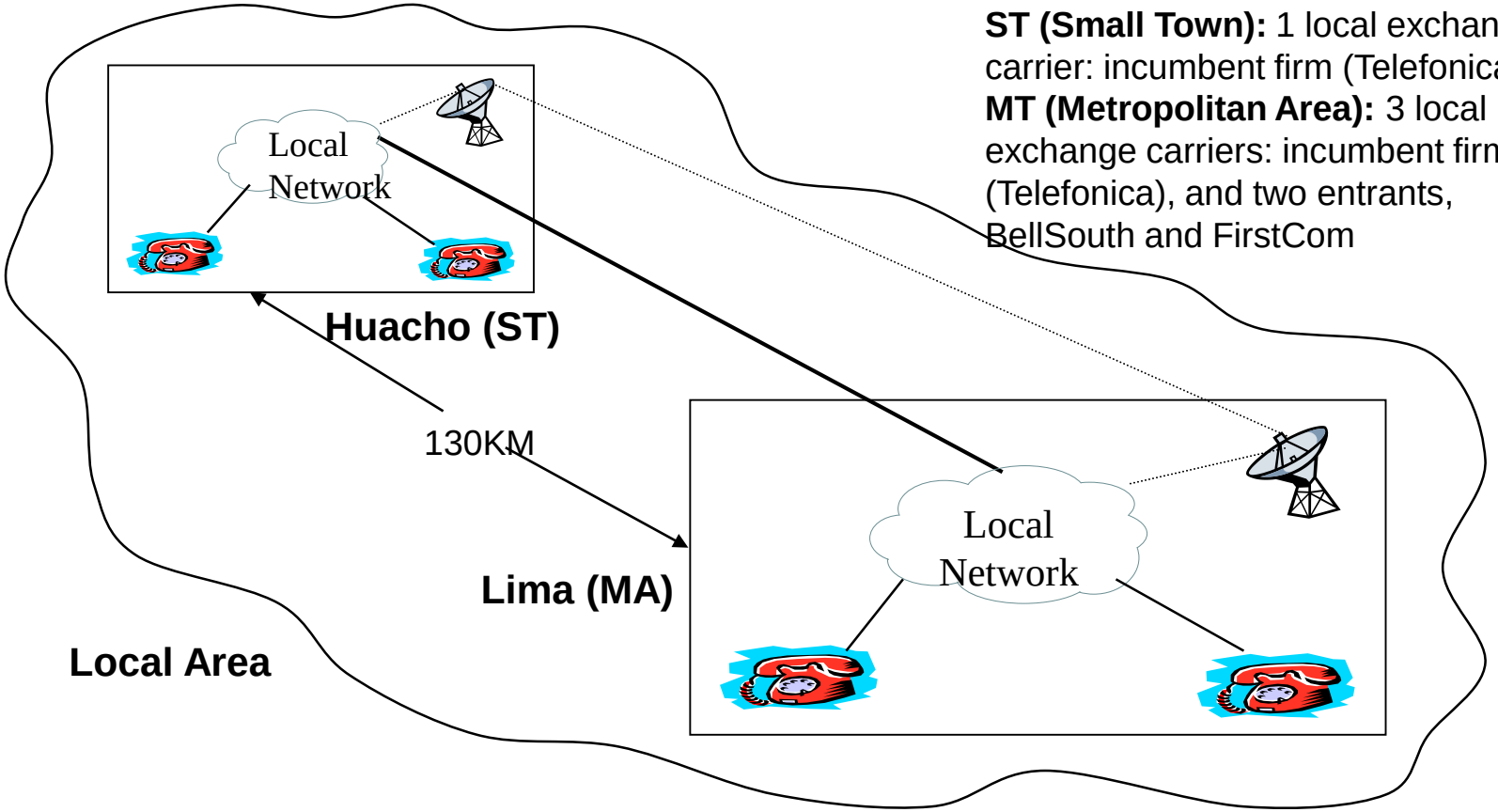
Access Charges in the Wireline Network (1)

- Currently in Peru there is in only one operator for local wireline services: Telefonica (Spain)
- A few months ago, both BellSouth and FirstCom (AT&T), began their own interconnection negotiation process with Telefonica.
- This interconnection negotiation process is the basis to develop competition in the local telephone market. This interconnection will only be applicable in Lima (Metropolitan area)
- Neither BellSouth nor FirstCom have reached an agreement with Telefonica. Therefore, OSIPTEL must publish an interconnection mandate and set the access charges.

Access Charges in the Wireline Network (2)

- Controversial issues are:
  - Should the originating/terminating charge be unique or different according to the final service?
  - Should the currently defined local areas be the basis for setting originating/terminating charges?
  - Is it necessary to establish a transit charge within the local area?

Access Charges in the Wireline Network (3)



ST (Small Town): 1 local exchange carrier: incumbent firm (Telefonica)
MT (Metropolitan Area): 3 local exchange carriers: incumbent firm (Telefonica), and two entrants, BellSouth and FirstCom

Access Charges in the Wireline Network (4)

- Metropolitan Area (MA) and Small Town (ST) are in the same local area.
  - Access charge in both networks is the same.
  - Different costs for terminating a call.
  - Access charge is an average in local areas with large variance
- **Proposal 1:** inter-provincial transport charge.
- **Proposal 2:** access charges differentiated for each local network.

Access Charges in the Wireless Network (1)

- Prices of mobile services are not regulated, because OSIPTEL believe that the duopoly in these market must generate competitive prices.

- However, since 1997 the prices has been adjusted by increases in the exchange rate, but above the domestic inflation rate, with the overall effect of having price increases in constant Nuevos Soles.

- Given the above, there seems to be a low intensity level of price competition in the retail market. This reflects high access charges in wireless networks.

Access Charges in the Wireless Network (2)

- Currently, the access charge in wireless networks, for terminating calls, is over US$28 cents per minute. In comparison with other Latin American countries, it is found that on average they have an access charge of about US$18 cents per minute for the system calling party pays.

- Nowadays, we have proposed an access charge similar to the above benchmark and have begun a LRIC study about access charge in wireless networks.

Costs for Adapting the Network due to Interconnection (1)

- Open access is an obligation of the 1993 Peruvian Telecom Act. This implies that the internal architecture must be prepared for the interconnection with other networks.

- However, it is necessary to make network adaptations, for example: signaling cards, DDF, ETC cards, etc. These items are considered adaptation costs for the incumbent network.

- We have established that an entrant firm who requests interconnection must pay part of these costs.

Costs for Adapting the Network due to Interconnection (2)

- In order to reduce entry barriers, without affecting efficiency, the entrant should pay some of the sunk costs of the total amount of the adaptation's costs.

- This rule tries to prevent the sharing of risk by the entrant operator to the incumbent, which may reduce productive and allocating efficiency.

Interconnection Agreements or Mandates

1) Agreement Telefónica (fixed) – Nextel (trunking)
2) Agreement Telefónica (fixed) – Bell South (mobile)
3) Agreement Nextel (trunking) – Bell South (mobile)
4) Agreement Global Village Telecom (rural access) - Telefónica (fixed).
5) Mandate Firstcom (AT&T) (long distance) – Telefónica (fixed).
6) Mandate Nortek Communications (long distance) - Telefónica (fixed and mobile)
7) Mandate Celcenter (pager) - Telefónica (fixed)
8) Mandate TeleAndina (long distance) - Telefónica (fixed and mobile)
9) Mandate Full Line (long distance) - Telefónica (fixed and mobile)

Final Remarks (1)

- Interconnection is critical for improving the results of competitive process in telecom services: long distance, local (wireline and wireless)
- In regards to WTO rules Peru has adopted a modern framework for its interconnection rules
- Nowadays prices for the long distance calls have decreased in about 30%
- The high number of new operators in the long distance market are a signal of success of the regulatory framework

Final Remarks (2)

- Currently, we are in a transition from monopoly to competition in the long distance market. The rules has been set and what it is now required is to advocate and defend the competitive process.

- In order to complete the appropriate framework it is necessary to set pro competitive access charges, cost oriented and efficient. We are now in this process, and we hope to finish it in a few weeks.

Thank you

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