

APPLYING INTERNATIONAL BEST PRACTICES AND BENCHMARKS TO TELECOMMUNICATIONS PRICING IN THE OECS

1.0 INTRODUCTION

Cable and Wireless has proposed price changes for Telecommunications services with ECTEL Member States. To evaluate these price changes, some standard is needed for judging whether they are just and reasonable. In the absence of appropriate cost data, the Tariff and Pricing Team has compared the proposed Cable and Wireless prices against the prices for similar services in comparable countries. The benchmarks derived from this analysis, combined with the policy objectives of ECTEL, form the basis for our conclusions and recommendations. Policy objectives include fair and efficient pricing, the enablement of competition, the promotion of new investment, the stimulation of Internet usage and associated electronic commerce, universal service, and the promotion of ECTEL cohesion and identity. Especially important, future price caps will have the agreed rates as their starting point. Further, the proposed benchmarks are for the subsequent development of price caps for telecommunication services.

2.0 METHODOLOGY

2.1 Criteria for Benchmark Countries

The benchmarking exercises companies of Cable and Wireless' proposed rates to those of countries that are similar to the ECTEL situation, but that have achieved the objectives that ECTEL would like emulate. Based on these comparisons, ECTEL can determine the set of prices that reflect the outcomes experienced in well-regulated, efficient, competitive markets.

Countries were evaluated based on the following characteristics:

- Similar geographic and demographic characteristics: The most significant feature of the ECTEL territories is that they are small islands with large tourism industries. This implies relatively low domestic calling, but a good deal of inter-island and international calling. Antigua and Barbuda, Singapore, Hong Kong, meet this standard. Jamaica and the United Kingdom are also islands, but of a size that there is significant domestic long distance calling.
- An effective regulator: In the USA, UK, Hong Kong, Singapore, the regulators are relatively highly effective and have a long period in which to implement policies. As a result, these countries have largely completed the

process of tariff rebalancing and price adjustments needed for the incumbent to face liberalization.

- A workably competitive market: Hong Kong is one of the most competitive telecommunications markets in the world. As a result, the price structures that have evolved provide a benchmark for the outcomes of competitive market forces.
- Progress or completion of Rate Rebalancing: Singapore, Hong Kong, the UK and the USA have largely completed the process of rebalancing rates for telecommunications services. In Jamaica the process is under way.
- Efficient telecommunications operations: While this is a multi-faceted consideration, we use as a standard Access Lines per employee as a rough guideline. Antigua and Barbuda has an estimated 300 lines per employee, which compares favorably with other networks in the region.
- Similar proportion of domestic-international calling: Rebalancing between international and local calling rates is complicated in a market with significant domestic long distance calling, because another service is added to the equation. By looking at countries with low domestic long distance, a cleaner comparison to ECTEL is possible.

2.2 Critique of Cable and Wireless Benchmark Comparisons

In addition to the OECS critique of the Cable and Wireless proposal the Tariff Team is of the view, that the benchmarks chosen by Cable and Wireless were misleading for the following reasons:

- Comparisons to the US for line rentals ignore the unlimited local calling that accompanies the monthly line rental charge in most US calling areas. Unlimited local calling allows Internet users to surf at will, and download information even at the slow speeds of most dial up lines.
- Many of the international comparisons are based on countries that have large domestic long distance calling, and lower international calling, as a proportion of the total. ECTEL countries have large international calling, and low domestic long distance calling.
- Many of the countries do not have competitive markets, effective regulators, nor rebalanced tariffs. The exception is Chile, which has a very high proportion of domestic long distance.

2.3 Structure

The analysis recommends prices for the following services based on benchmarks:

- Local Calling (LC)
- Domestic Long Distance (DLD)
- International Direct Dial (IDD)
- Installation and Reconnection
- Internet Provisioning

3.0 LOCAL CALLING

- Local calls are defined here as calls within each ECTEL Member State. Local calling strongly affects social cohesion and Internet usage. Calling is encouraged by low charges for usage. Therefore, the optional tariff structure proposed by Cable and Wireless for Grenada should be applied across all ECTEL Member States. This structure allows users to choose between a bundled package that includes fixed monthly charges combined with unlimited local calling. Alternatively, a user can choose an unbundled package with lower monthly charges than the above option, accompanied by usage-sensitive fees. A Low User Scheme could be overlaid as an additional variation.

In recommending the specific prices the Tariff team used the following logic. With the redefinition of “access” arising from the deregulation of CPE and inside wiring, the cost and price of monthly access should fall. Based on examination of the current fee structure in the OECS and the benchmark analysis on Appendix B, the Team recommends the following fee structure:

- Within each ECTEL territory, establish two identical options:
 - Monthly Flat Rate Plan: Flat fee of EC\$40 (residential) and EC\$80 (business) per month with unlimited intra-territory calling. These rates are comparable to US local flat rates. This is the default plan unless the customer chooses the Optional USP plan.
 - Optional Usage Sensitive Pricing (USP) Plan: Lower Monthly Line Rental of EC\$20 (residential) and EC\$40 Rental (Business) (half of Flat Rate Plan) with usage sensitive pricing at .05, .04, and .03 cents per minute for Day, Evening, and Night/Weekend rates, billed in a maximum of 6 second increments, with per second charging preferred.

4.0 DOMESTIC LONG DISTANCE

All calls between ECTEL Member States will be rated as Domestic Long Distance. As a result of this definition, no international settlements will be involved, as these calls are no longer treated as IDD calls. Charges should not differ between ECTEL Member States. To arrive at recommended Domestic Long Distance rates, the Team looked at rates for comparable distances in well-regulated and competitive markets as shown in Appendix B. For example, the rates charged by Singapore Telephone for calls between Singapore and nearby Malaysia are charged at EC\$0.57 per minute for Peak and EC\$0.365 per minute for Off-Peak. Our recommendation is that rates be set at an average of EC\$.50 per minute. As with Local Calling, billing should be done in a maximum of 6 second increments, with per second charging preferred.

5.0 INTERNATIONAL DIRECT DIALING

5.1 Mobile IDD

The proposed 75% reduction by Cable and Wireless has the effect of pre-empting the competitive effect of new licensees and reducing their competitive opportunity while making up lost revenues through increases in the prices of other services. Market forces should set these rates independently of this benchmarking exercise.

5.2 Fixed Line IDD

IDD rates are falling around the world. The rates eventually adopted by ECTEL Member States should be viewed as a ceiling, to allow further downward movement in response to competitive market forces.

The Team proposes three categories of Fixed Line IDD Rates:

Category 1 calls from ECTEL Member States to other OECS Member States.

Category 2 calls from ECTEL Member States to other Caribbean countries.

Category calls from ECTEL Member States to the rest of the world.

Of primary concern are the charges for calls to those regions within the ECTEL citizens' primary community of interest. In place of the present aggregated price proposal, Cable and Wireless should provide a detailed listing of existing and proposed rates for calls to each of the countries separately for each of the above categories.

Category 1 is separately considered because of the possibility that the countries in this grouping may later become ECTEL participating States. We recommend that ECTEL accept Cable and Wireless' proposal for IDD calls from ECTEL Member States to other OECS Member States that indicates a reduction of 45% from

current IDD rates, yielding an average rate of EC\$0.66 per minute.

For calls to Other Caribbean States within Caricom the Team proposes to use the same rates as Category 1.

For non-Caricom states, the Team sees no reason why the same percentage reductions of 45% could not be applied. Moreover, the Team recommends that rates to these countries from ECTEL Member States be harmonized at the lowest rate applying in any Member State.

The Team proposes a 45% reduction from the lowest current rate for calls from ECTEL Member States to Other Caribbean non-Caricom States, and that these rates apply to all ECTEL Member States.

Existing and proposed rate details should be provided for calls to those countries in the Rest of the World that are within ECTEL Member States' primary community of interest. These include countries in North America, Western Europe, and South and Central America. Reductions in call charges to e.g. Antarctica and Uzbekistan, while important, are less valuable.

Cable and Wireless' proposal has not provided details of the proposed rates for calls to these areas. A detailed list of calling charges is needed comparable to that provided in the Directory listing, showing rates to each country by billing period, and proposed reductions.

The Team recommends that Cable and Wireless reduce rates by 45% for calls to the following countries/regions: USA, Canada, Mexico, UK, Germany, Netherlands, Sweden, Norway, South and Central America.

For other countries/regions in this category, the Team recommends that ECTEL accepts the 31 percent reduction proposed by Cable and Wireless.

6.0 INSTALLATION AND RECONNECTION CHARGES

Cable and Wireless proposal offers "no increase in line installation and reconnection fees." However, it is the Team's view that due to the impending deregulation of CPE and inside wire within ECTEL, these rates should be substantially reduced.

Installation and Reconnection must be clearly defined. In the view of the Team, the appropriate definitions are as follows:

- Installation charges are incurred:

Type A: when new dedicated facilities are required by a customer; or

Type B: when a new customer is connected in a location where dedicated

facilities are already in place.

There is a significant cost differential between Type A and Type B and the Team believes that Installation Charges should be harmonized across all Member States.

The Team recommends that the harmonized rate be set to the level presently charged in St. Lucia, which is assumed to be an average for Type A and Type B, of EC\$125 for both business and residence. (Note that the current position in St. Vincent is EC \$100.)¹

- Reconnection Charges are incurred when an existing customer terminates service, either voluntarily (e.g. seasonal residence) or at the initiative of the provider (e.g. for non-payment), and is then reconnected to the existing facilities. Again, the Team recommends that a harmonized rate be based on the St. Lucia rate of \$30. (Note that the rates in St. Vincent and Grenada are EC\$20.)¹

Despite the foregoing, the Team wishes to point out that current Installation rates cover the capital investment and operating expenses associated with Cable and Wireless' installation and maintenance of inside wire, handsets, PABX equipment and the like. With CPE deregulation, those costs will be eliminated and the responsibility for them placed on users. Cable and Wireless should provide a breakdown of capital costs and operating expenses associated with these functions.

7.0 INTERNET

Currently, Cable and Wireless bundles together its Internet service and calling charges for access. With the emergence of competing ISPs, customers will be able to dial in to alternative providers. In order to ensure that there is no discrimination, the Team recommends that Cable and Wireless separates the calling charge from the ISP service charges and treat the price of calls to ISPs as they would any other call.

The policy goal of the proposed Monthly Flat Rate Plan for Local Calling is to expand use of the Internet, encourage electronic commerce, and help bridge the Digital Divide.

The Team recommends that market forces establish the price for Internet services.

¹ ECTEL Member States may wish to exercise some flexibility on Installation Charges, as it is likely that Cable and Wireless will seek to have any deficits made up in some form of Access Deficit Charge under Interconnection Pricing.

8.0 OTHER CONSIDERATIONS

8.1 Leased Line, Vertical Services, And Other Services:

The Team assumes that since the prices for these categories have not been discussed, they will continue unchanged for now. The Team has no objection to that at this time, but recognizes that these services will be addressed as part of a comprehensive price cap regime. In addition, leased line prices in particular will come under scrutiny as part of a pending proceeding on interconnection facilities and prices.

8.2 Wholesale Prices:

There is an important distinction between Interconnection, defined as Call Termination, and Wholesale Access services, which are a form of resale. Indirect Access is often confused with Interconnection. In order to keep them separate, all providers of local access services will need to develop wholesale offerings. The Team therefore recommends that discussions begin with Cable and Wireless with respect to these issues.

8.3

Non-Price Terms and Conditions:

Although this analysis and the associated recommendations have focused on pricing issues, non-price terms and conditions can have significant effects on the process of liberalization. Therefore the Team recommends that Cable and Wireless provide a full description of its offerings in detailed tariffs addressing issues such as service quality, liability, billing and collection arrangements, termination criteria, etc. Further, Cable and Wireless must also provide appropriate notice of any proposed changes in their tariffs as part of a transparent regulatory process.

9.0 CONCLUSION

Despite its inherent weaknesses, benchmarking is widely used to inform decision making with respect to telecommunication services. Indeed, benchmarking can be particularly useful in circumstances where detailed and rigorous costing analyses are not feasible. The Tariff Team opined that the proposed benchmarks are quite reasonable given the particular characteristics of the ECTEL sub-region and that detailed examination of costs and modeling apart from being near impossible given the paucity of data may not necessarily provide useful results to justify the resources required.

The proposed rates are consistent with the global trends in the telecommunications industry and seek to position ECTEL Member States within that framework.

The rates proposed must be seen as only a starting point as the region seeks to liberalized the telecommunications market and as such dynamic market forces will be the final arbiter.

Appendix A

Selected country characteristics

As an indicator for the use of these countries:

Country	Area	Teledensity	Terrain	GDP per Capita	Access Lines per Employee	Description of telephone system
Antigua and Barbuda	442 sq km	46% (1996)	Low lying lime-stones & some higher volcanic areas	\$8,200.00 (1999 est.)	300	Good automatic telephone system 1 coaxial cable and earth station
Bahrain	620 sq km	25% (1997)	Mostly low lying desert plain	\$15,900.00 (2000 est.)	65	Modern fiber optic digital network
Dominican Republic	48,380 sq km	11% (1999)	Rugged highlands and mountains	\$5,700.00 (2000 est.)		Relative efficient system based on microwave relay
Hong Kong	1042 sq km	56% (1999)	Hilly to mountainous with lowlands in the north	\$25,400.00 (2000 est.)		Modern digital facilities
Singapore	637.5 sq km	48% (2000)	lowlands	\$26,500 (2000 est.)		Excellent domestic facilities
Jamaica	1144 sq miles	20% (1999)	Hilly to mountainous	\$3,500 (1998)	150	Excellent domestic facilities

APPENDIX B: SELECTED COUNTRY ANALYSIS

ANTIGUA

Reasons for using it is already a part of the OECS countries: similar geographic characteristics, efficient telecommunications operations, completed rate re-balancing (because it is only a national network that makes money without any subsidy from the International network), network size and similar per capita income.

An indicator of efficiency is the measure of Access lines to Employee average of 300 Access Lines per employee. The network is owned and operated by the Government of Antigua under an umbrella arrangement with the power and water company.

The network is purely a national network (i.e. it does not have an International side, this is done by Cable and Wireless).

- LOCAL AND NATIONAL CALLING

Prices are in EC\$

	Residence	Business
Installation	\$245.00	\$440.00
Annual Rental (Access)	\$360.00	\$720.00
Local	5c-3.5c per minute	5c-3.5c per minute
Long Distance	None	None

Business Access is twice as much as the Residential rates, but receives a higher degree of service in that faults reported by a business line are fixed within 8 hours. (In any case, it is common for historical reasons for the business access rate to be twice that of residential. This is a legacy of monopolistic “value of service” pricing.) Antigua’s return on assets is in the low to mid 30%.

- INTERNATIONAL SERVICE

For international service, Cable and Wireless has exclusivity. The exception is a few Internet Gaming companies that are providing their services via VSAT. Cable and Wireless’ service to them proved to be expensive and Cable and Wireless was unable to provide the speed and band-width they required.

In Antigua Cable and Wireless is required to pay approximately 45-52% of gross revenues as a licensing fee to the Government.

Prices are in OECS dollars

USA	\$4.45-\$2.66	Guyana	\$2.10-\$1.26
England	\$5.10-\$3.05	Trinidad	\$2.10-\$1.26
Jamaica	\$2.10-\$1.26	Venezuela	\$4.45-\$2.66
Barbados	\$2.10-\$1.26	Dominica	\$1.10-\$0.66

Antigua proves to be an interesting case; this is a network that makes money. The return on assets is in the low to mid 30%, and if they were allowed to keep the money much more improvement in the network would be feasible. There are no cross-subsidies in the network and in fact while no studies have been completed it is the general belief of the managers that value-pricing is being done.

The international portion of the network is even more interesting. Cable and Wireless has exclusivity in the provisioning of international service to Antigua. There are some exceptions that is, a few Internet Gaming companies that are providing their own service via a VSAT. The reason the Internet companies have their own service is the link with Cable and Wireless is expensive and Cable and Wireless is unable to provide the speed and band-width required.

JAMAICA

Jamaica was chosen as another example to bench mark against as it proved to be one of those island states that is just emerging from having weak regulatory mechanisms to being more effective, moving from an entrenched monopoly, having the same incumbent Cable and Wireless and it is an island state within the region. Additionally it is just at the point of completing its rate rebalancing process.

- LOCAL AND NATIONAL SERVICE

	Residence	Business
Installation	\$13.99	\$19.92
Annual Rental (Access)	\$78.84	\$188.16
Local	\$0.0051-.004 per minute	\$0.0051-.004 per minute
Long Distance	\$0.02c-\$0.011 per minute.	\$0.02c-\$0.011 per minute

- ✓ INTERNATIONAL SERVICE.

Country	US price	EC price
USA	\$0.53-0.48	\$1.43-\$1.296
Canada	\$0.53-0.48	\$1.43-\$1.296
UK	\$0.53-0.48	\$1.43-\$1.296
Western Europe	\$1.06-0.85	\$2.862-\$2.295
Commonwealth Caribbean	\$0.40-0.36	\$1.08-\$0.972
Other Caribbean	\$0.53-0.48	\$1.43-\$1.296
South and Central America	\$1.17-0.96	\$3.159-\$2.592

BAHRAIN

The choice of Bahrain was due to it being an island state and outside of the region and was put simply as a basis for information, but it is a Government run entity that makes money.

Bahrain Telecommunications Company (BATELCO) is the sole provider of national and international telecommunication services. It is a government entity that is regulated by the Ministry of Transport. It possess a network the supports 65 Access Lines per employee with a telephone density of more than 25 percent.

Bahrain's telecommunications infrastructure is one of the most sophisticated in the Middle East and it telephone rates are ranked among the most inexpensive in the world.

LOCAL AND NATIONAL SERVICES:

US currency

	Residence	Business
Installation	\$53.19	\$53.19
Annual Rental (Access)	\$36.96	\$68.88
Local	\$0.019	\$0.019
Long Distance	None	None

USA

This is a market that is completely deregulated and highly competitive. The rates vary dramatically from state to state and these rates are from Long Island.

US currency

	Residence	Business
Installation	Approx \$80.00	Approx. \$150.00
Annual Rental (Access)**	Approx \$180.00	Approx. \$240.00
Local	8c per call no time duration	12c initial plus 1c
Long Distance	15c initial 2-3c per minute	15c initial 2-3c per minute

**Because the rate center chosen is in the New York City area, there is a charge for local calls. This is also true in Chicago. However, in most of the United States, the monthly access rate includes unlimited local calling. More than anything, this fact is responsible for the extensive Internet penetration of the United States compared to the rest of the world. Unlimited local calling allows Internet users to surf at will, and download information even at the slow speeds of most dial – up lines.

Call Charges (EC\$)

Singapore	Standard:	per 30 second block	\$.01
	Economy	per 60 second block	\$.01
Cable and Wireless	Standard:	per 60 second block	\$.11 (based on St. Lucia rates)
	Economy:	per 60 second block	\$.055
PCCW	Standard:		Free
	Economy		Free

Hong Kong (which includes the island and the New Territories) has no national calls; all calls are either local or international.

This comparison supports the case for island-wide unmetered calls. Singapore's rates are about an EC penny, but their annual rental charge is very low. For the annual rental rates that Cable and Wireless is proposing (and higher for business), free calling seems justified by these benchmarks. That would have the additional benefit of stimulating Internet usage and associated e-commerce.

- International Calling

Singapore Tel's Zone 4 rates to nearby Malaysia are a proxy benchmark for calls within ECTEL territories. These rates are \$0.57 EC per minute in Standard period, and \$.365 EC per minute in Economy period.

Appendix C

CATEGORY/COUNTRY	PRESENT RATES EC\$ APPROX AS RATES VARY WITHIN ECTEL MEMBER STATES	PROPOSED REDUCTION
<u>CATEGORY 1</u> Antigua and Barbuda, Anguilla, British Virgin Island, Turks and Caicos Islands,	\$2.25	45% REDUCTION
<u>CATEGORY 2</u> Haiti, Dominican Republic, Aruba, Curacao, Bonaire, Guadeloupe, Martinique, St Martin, St Marten, Trinidad and Tobago, Jamaica, Guyana, Bahamas, Bermuda, Puerto Rico, USVI	\$3.25	45% REDUCTION
<u>CATEGORY 3</u> USA, Canada, Mexico, UK, Germany, Netherlands, Sweden, Norway, South and Central America	RANGES FROM \$5.40 TO \$3.25	45% REDUCTION
<u>CATEGORY 4</u> Rest of World	THE HIGH IS \$5.40	31% REDUCTION

Bibliography

- a) Yearbook of Statistics Telecommunication Services 1988-1997
- b) CIA Fact book
- c) BT Website
- d) Telephone Books for New York City, Grenada, St. Lucia, St Kitts and Nevis, St Vincent and the Grenadines, Antigua and Barbuda, and Jamaica