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Our ref: GRCR/GR 15.24 22 June, 2007

Mr. David Archbold,
Managing Director,
Information, Communication Technology Authority,
P.O. Box 2502GT,
3<sup>rd</sup> Floor Alissta Towers,
Grand Cayman.

Dear Mr. Archbold:

#### Re: Cable & Wireless Virtual Office Service

Further to questions posed by Authority staff, Cable and Wireless (Cayman Islands) Limited ("C&W") submits the attached revised imputation test description.

# 1. Summary of Changes

## 2. Confidentiality Claim

C&W is filing this letter, including the attached imputation test description, in confidence with the Authority. The cost information set out in this letter and



attachment, if disclosed to the public at any time, would cause C&W specific and direct harm.

An abridged version of this letter will be filed. All confidential information has been replaced by "###".

Please contact me regarding any questions you may have.

Yours faithfully, Cable & Wireless (Cayman Islands) Ltd.

"Signed"

\_\_\_\_

Rudy B. Ebanks Chief Regulatory and Carrier Relations Officer

c.c. Timothy Adam, Chief Executive C&W
Ian Tibbetts, Chief Operating Officer C&W
Frans Vandendries, VP Legal and Regulatory C&W

Encl.



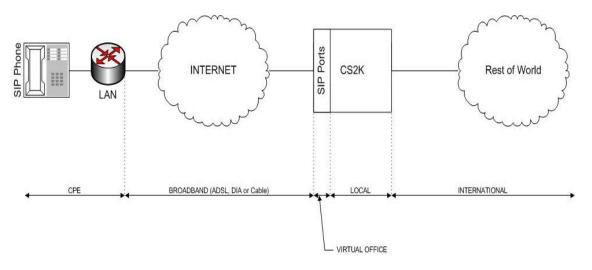
## **Imputation Test for Virtual Office Service**

Based on the determination of the Authority that this product represents a Category 4 bundle containing a Category 1 service, in particular access to the PSTN, it is subject to an *ex ante* imputation test according to Part 3 of Annex 5 of C&W's Licence.

We note that, beyond the intercommunicating service between stations within the Virtual Office and the access service to the C&W PSTN, the customer will buy associated services such as ADSL or DIA access, local calling and international calling. These associated services, however, are charged at prices set out under existing and separate tariffs for those services and therefore need not be a part of the imputation test.

The imputation test for Virtual Office service, therefore, needs to address whether the pricing for the Virtual Office product itself covers the cost of both the Virtual Office platform and the cost of the access to the C&W PSTN. We note that in both cases the adjusted FAC model does not contain information that could be used for much of this analysis, as the Virtual Office product and the equipment used for access from the Virtual Office platform to the C&W PSTN did not exist at the time of the FAC modeling. We therefore use current vendor pricing for the equipment (network cost) for the Virtual Office platform itself and the access to the PSTN separately. We use the adjusted FAC model results for retail and common cost estimates.

In the diagram below we show how a Virtual Office customer is provisioned. We note that the Virtual Office platform includes the cost of the "SIP ports" shown below. The access costs are the costs of those facilities that join the SIP ports to the C&W PSTN (in the form of the CS2000 ("CS2K") softswitch).



SIP Port Equipment



The SIP Port costs include the SIP Line Hardware, Strata software and server. We also add the installation and engineering costs that the vendor charges. We treat these vendor charges as a capitalized value. The total associated capital expenditure is US\$ ###, the breakdown of which is included in Table 1 below. We take a simple annuity approach to capital cost assuming a five-year life for these assets and the cost of capital figure of 13.5% from the adjusted FAC model. The annualized capital cost is US\$ ###, or a monthly cost of US\$ ###, Using the expense factor analysis that has come out of the on-going FLLRIC proceeding, we have assumed annual maintenance and repair costs of 3.27% ("Provide and Maintain Other Service Platforms" at row 45 of the Expense Factor Sheet of the Fixed Network model) of capex. This is an annual cost of US\$ ### \*3.27%, or a monthly cost of US\$ ###.

We expect to achieve ### customers with a total demand of around ### ### (###) SIP lines within three years of the launch. However, based on sales expectations, we can assume a ramp-up from ### customers and ### lines in year 1 and ### customers with ### lines in year 2. In year 3 and thereafter, we expect to have reached the total demand level. Thus, we have an in-service average over a five-year period of ### customers at ### lines. This results in a cost for Virtual Office equipment, on a per-line-per-month basis, of US\$ ### or CI\$ ###, assuming an exchange rate of CI\$0.84=US\$1.

Table 1. Virtual Office Equipment Costs

| Equipment(including duties and freight) | US\$ | CI\$ |                       |
|---|------|------|-----------------------|
| ### ### ###                             | ###  | ###  | А                     |
| ### ### ###                             | ###  | ###  | В                     |
| ### ### ### ### ###                     | ###  | ###  | С                     |
| ### ### ###                             | ###  | ###  | D                     |
| Installation (Capitalized)              | ###  | ###  | E                     |
| Total                                   | ###  | ###  | F = A+B+C+D+E         |
| Annualized Capital Cost                 | ###  | ###  | G = -PMT(13.5%, 5, F) |
| Monthly Capital Cost                    | ###  | ###  | H=G/12                |
| Monthly Maintenance and Repair          | ###  | ###  | I=F*3.27%/12          |
| Per Line                                | ###  | ###  | J = (H+I)/###         |

Please note that this platform comprises all the functionality of the ###, ### ### ### ### packages. There are no costs specific to the ### packages.

### Equipment providing PSTN Access

The PSTN access portion of the service is provided by eight (8) Ethernet cables which connect to four (4) separate cards in the CS2K. That is, two (2) slots are required for each card. These cards are shared by other services on the CS2K, and in fact provide the interface for all services provided by the CS2K Softswitch. We note that actual use



at any given time would be four (4) Ethernet cables connecting to two cards, but each are doubled up for redundancy purposes: should one of the cards fail, the service would switch to another card.

The per-subscriber cost is derived in Table 2. Each card can accommodate thirty-two (32) slots. The actual fill at present is ### slots. However, we recognize that this implied fill-factor of over ###% is higher than an expected longer run average. So, we looked back to our records for the CS2Ks at OTS, which were installed in 2003, and have found that in early January 2004, they were at ###% port utilization. Between 2004 and early 2007, they were at ###%. Utilisation began to creep up from early 2007. We believe that the ###% is a good estimate for a long-run average.

We identify the cost associated with each card, which is US\$ ###. Additional housing costs for these cards are not material. Again, two slots are needed per card for the Virtual Office product. The VO access cost per card is therefore ### / (###.##) or ### ### of US\$ ###, or US\$ ###. Four cards are required, so the total investment cost associated with the cards is US\$### \* 4 = US\$###. The landed cost of the Ethernet cables is about US\$ ### per cable. As we use eight cables, the total investment in cabling is US\$ ###. The total investment in equipment necessary to provide the PSTN access element of the Virtual Office service, therefore, is US\$ ### (\$### + \$###). Assuming a five-year life for these assets at 13.5% cost of capital, the monthly capital cost is US\$ ###. Using the same 3.27% assumption for maintenance and repair, the monthly maintenance is US\$ ###. Using the ### customer/###-line assumption, the monthly cost of PSTN access per line per month is in the order of US\$ ### or CI\$ ###.

Table 2. PSTN Access Equipment Costs

| Per line (handset) Cost Calculatio | n     |                   |
|------------------------------------|-------|-------------------|
| Cost per Card                      | \$### | Α                 |
| Slots per Card (potential fill)    | ###   | В                 |
| Fill rate                          | ###%  | С                 |
| VO Slots per Card                  | 2     | D                 |
| VO Cost per Card                   | \$### | E = A * D/(B*C)   |
| VO Cards                           | 4     | F                 |
| VO Card Cost                       | \$### | G = E * F         |
| Unit Ethernet Cable Cost           | \$### | Н                 |
| VO Cables                          | 8     | I                 |
| VO Cable Cost                      | \$### | J = H * I         |
| Total Cost                         | \$### | K = G + J         |
| Monthly Capital Cost               | \$### | L=-PMT(13.5%,5,K) |
| Monthly Maintenance and Repair     | ###   | M= K*3.27%/12     |
| Per line in US\$                   | \$### | N = L+M / ###     |
| Per line in CI\$                   | \$### | $O = N^* 0.84$    |



The imputation test regulation requires the inclusion of both a common cost contribution and, of course, a retail mark-up.

Based on the Authority's 11 January 2007 determination on C&W's NetSpeak Residential service, we use the common contribution value of ###.

| Retail Activities                      | FAC Cost |
|--|----------|
| Advertise                              | ###      |
| Collect call data                      | ###      |
| Develop products                       | ###      |
| Generate bill                          | ###      |
| Manage products                        | ###      |
| Manage sales and revenue               | ###      |
| Prepare quotes/sell services           | ###      |
| Provide credit control/manage bad debt | ###      |
| Provide customer relations             | ###      |
| Respond to customer queries            | ###      |
| Schedule installations                 | ###      |
| Schedule repairs                       | ###      |
| Support billing systems                | ###      |
| Total                                  | ###      |
|  |          |

To obtain a per customer retail cost, we take this annual FAC cost of CI\$ ###, subtract the advertising which we intended to modify (for CI\$###) and spread it over ### customers, which figure is found on the Drivers sheet, cell AI7, of the adjusted FAC model. This averages out at CI\$ ### per customer per year or CI\$ ### per customer per month. Please note that this is a per-customer, not a per-line, figure. Applying that figure to our estimated average ### (###) customers, we expect the Virtual Office



relevant FAC retail costs to total CI\$ ###\* ### = \$### per month. The advertising costs are CI\$### per month. The total retail costs per month are thus CI\$###.

To convert this into a per-line figure, we take this total retail cost and divide by the number of average expected lines, i.e., CI\$ ### / ### = CI\$ ### per line per month.

## Bringing it all together

To determine whether the Virtual Office service will pass the imputation test, we compare the costs determined above to the lowest per-month rates for a Virtual Office line, that is, the rate for a ###, ### ### ### packages line on a three-year contract. As detailed in Table 3 below, the cost of a Virtual Office line is CI\$ ### per month, which is less than the CI\$ ### three-year ### package rate and, of course, even less relative to the ### ### ### packages.

Table 3. Virtual Office Profit

| 3 Year Contract Prices and Costs |     |  |
|----------------------------------|-----|--|
| Price per line-###               | ### |  |
| Price per line-###               | ### |  |
| Price per line-###               | ### |  |
| Virtual Office Platform          | ### |  |
| PSTN Access                      | ### |  |
| Common Cost                      | ### |  |
| Retail Cost                      | ### |  |
| Regulatory 6.7%                  | ### |  |
| Total Cost per line              | ### |  |

Thus, the prices for the Virtual Office product pass the imputation test.

