Rogers Cantel Inc.

Comparison of 2500 MHz MCS Learning Plans

Submitted in Accordance with

Canada Gazette Notice No. DGRB-006-99

“Multipoint Communications Systems in the 2500 MHz Range, Policy and Licensing Procedures”

November 19, 1999
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1. OVERVIEW

1.1 Introduction

In accordance with the procedure set out in Section 5.3.2 of Industry Canada Gazette Notice No. DGRB-006-99, entitled “Multipoint Communications Systems in the 2500 MHz Range, Policy and Licensing Procedures” (The “Policy and Call Document”), Rogers Cantel Inc. (Cantel) is pleased to provide comments on the Learning Plans submitted by applicants for MCS spectrum in the 2500 MHz range.

In this submission, Cantel provides a brief summary of its plan and how it measures up against the evaluation criteria established by the Department in the Policy and Call Document. This submission also includes an analysis of the other applicants’ Learning Plans and a comparison of these Plans with Cantel’s. The analysis focuses on three main areas: Learning Fund Projections, Proposed Discounts and Network Deployment Schedule. These areas coincide with the three main requirements of the Learning Community: content, affordable services and access in underserved areas.

1.2 Learning Fund Overview

The critical element in any fund is the amount of money that goes into it. Cantel is providing substantially more money for the fund than our competitors. Cantel's fund is also more flexible and guarantees more money upfront to the learning community.

Unlike the other applicants, Cantel decided that a significant proportion of its funding will be paid in the first few years of the license period. This strategy addresses a number of key issues facing the learning community. The problem with any contribution based on a percentage of gross revenue is that in any new business, revenues begin very slowly and then, towards the middle to end of the plan (assuming it is successful), significant revenue is generated. However, on this basis, a Learning Fund would be getting significant contributions only in the later years.

Cantel’s consultations with the learning community revealed that the need for substantial funds is now, rather than at some indeterminate point in the future. We believe that the fundamental deficiency in all of the other applicant's plans is that they do not provide the Learning Community with significant funding in the next few years. By contrast, Cantel will pay the average revenue of its 10-year business plan (as filed with Industry Canada), to the Learning Authorities in years one through year four. Furthermore, the Learning Fund will receive this payment for the first four years of the plan whether Cantel's revenues materialize or not. Therefore, in each of the first four years, Cantel is guaranteeing a $15.5 million payment to the various funds, for a total of $62 million. This four-year guarantee represents more money than Cantel’s estimates of Inukshuk’s fund.
over its entire 10 years. Cantel's $62 million (four-year) guarantee is a comparable amount of money to the $91.9 million that Telus is projecting over 10 years. Thus, Cantel's guaranteed payment of the first four years gives the Learning Authorities as much or almost as much as the other parties are forecasting over 10 years. Cantel's 10-year forecast payment provides far more money than the nearest applicant. Our 10-year forecast shows a $155 million fund payment. The closest applicant is Orbit, which Cantel estimates, based on Orbit’s five-year projection, may contribute $120 million over 10 years. Cantel is therefore providing substantially more money than the other applicants, and more importantly we are providing substantially more money in the early years of the license period.

**Fund Contributions**

Cantel's Learning Fund is also the most flexible. Some of the Learning Plans limit the use of the funds. Cantel’s Learning Fund has no strings attached. It can be used for facilities, for services, for software, or for teacher training. The Learning Authorities can purchase services and facilities from the Rogers' companies, or from any other 3rd party.

**Discounts**

The discount structures in Cantel's plan provide a clear 10% off Cantel’s best posted commercial rate. Schools, libraries and CAP sites will pay 10% less than the best published commercial rate that any commercial customer would pay. This discount applies for as many circuits as they want, for as many locations as they want and for any of the fixed MCS services: telephony, Internet services or Intranet service.

Cantel also has a unique proposal to give all of the products, services and facilities provided by Cantel and its networks to the Learning Authority at cost. If the Learning Fund Governance Council specifies that it requires fibre transmission going from point A to point B to connect a remote community and Cantel has fibre available or plans to build fibre, it will be offered at cost. We believe that this is a unique methodology where Cantel's two per cent becomes four per cent given that cost is generally about half of retail price. By providing facilities and services to the learning community at cost, a true partnership between Cantel and the learning community will be established. None of our other applicants have proposed anything similar. In addition to these offers at cost, Rogers will also offer services and facilities from our partners and affiliates at preferential rates. For example, Rogers Communications has a technology partnership with Microsoft and is 10% owned by Microsoft. Microsoft has a vast amount of educational software and programs, and Cantel intends to provide access to these products at preferential rates. Cantel also has a partnership with AT&T Canada that, together with BT, owns 1/3 of Cantel. Cantel therefore will also bring offers of their services and networks at
preferential rates to the Learning Fund. We believe that this combination of offers greatly enhances the value of Cantel's Learning Plan contribution.

The discounts proposed by Cantel's competitors are at best, unclear. The Telus application states that they will provide "discounts available to volume customers". Cantel is not sure what this means because the educational community already buys in volume. It may be that Telus is not offering anything that the education community would not otherwise have access to. By contrast, Cantel's offer is that in addition to the volume discount that any other business customer would get, the learning community receives a further 10%.

Inukshuk states that they will give wholesale pricing which is typically 25% below retail rates because of "avoidable costs". The reference to affordable costs may mean that the Inukshuk wholesale offering is different than the retail offering. The avoidable costs might include the costs associated with important applications such as detailed billing or customer service. In any event, Inukshuk's discount offer is vague. By contrast Cantel's telephony, Intranet and Internet rates, (which will already be at a considerable discount below the rates offered by the phone companies) will be discounted a further 10% for the learning community.

1.3 The Size of the Fund

Cantel is committing to provide 2% of its gross revenues to the Learning Fund while the other applicants are proposing to provide 3, 4 or 5% of their gross revenues to their Learning Funds. Notwithstanding this, as noted above, Cantel’s projected payments to the fund are much higher than the other applicants’ projected payments. Indeed, Cantel’s guaranteed payments in the first four years of its plan are higher than any applicants’ forecast payments over ten years. It is easy to see why 2% of Cantel’s revenues represent a much greater amount than 5% of another applicant’s revenues. Cantel projects much higher revenues in its business plan than the other applicants. The reasons why Cantel’s business plan has much higher revenue are also evident.

The other applicants are proposing to provide wireless Internet service only. In sharp contrast, Cantel will provide both wireless Internet service and wireless telephone service from day one of its deployment. Cantel will operate two businesses instead of one, and the added business - telephone - is extremely large. In consequence, Cantel has far more revenue in its plan than the other applicants have in theirs. This larger revenue stream explains why Cantel's 2% funding commitment is considerably greater than that of the other applicants.

In addition, Cantel intends to serve both residential and small business customers. The small business market is currently a very underserved component of the
telecommunications industry. Small business customers pay full tariff rates without volume discounts and we believe that these businesses will be an attractive market for a combined telephone and Internet competitive service offering.

Further, it would appear that Inukshuk and Telus are basing their Funds on wholesale revenues, while protecting their higher retail revenues within affiliated resellers. Cantel, on the other hand, bases its fund on both its retail and wholesale offerings. This ensures that the size of Cantel's Learning Fund will be maximized.
2. CANTEL’S LEARNING PLAN

Cantel’s Learning Plan consists of three main areas of endeavour: The Cantel Learning Fund; discounted services and facilities; and directed contributions. These are described in Table 1 below.

<table>
<thead>
<tr>
<th>Learning Plan Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cantel Learning Fund</td>
<td>The Fund receives 2% of Cantel’s adjusted gross revenues from MCS over the 10-year license period, with guaranteed contributions of $15.5 million in each of the first four years after licensing. The learning community along with Cantel, through participation on the yet to be established Governance Council, will jointly decide on the priorities upon which use of the Fund will be based. Cantel sets no pre-defined conditions or restrictions on the use of the Fund.</td>
</tr>
<tr>
<td>Discounts</td>
<td>This consists of two elements:</td>
</tr>
<tr>
<td></td>
<td>• Cantel, its affiliates and its strategic partners will make products, services and facilities available to the Fund at cost, representing a discount of approximately 50%;</td>
</tr>
<tr>
<td></td>
<td>• Cantel’s MCS service will be provided at a 10% discount to all sectors of the education community.</td>
</tr>
<tr>
<td>Directed Contributions</td>
<td>Cantel commits to contributing to several institutions and organizations involved in the learning community. These contributions are over and above those committed to as part of the Learning Fund:</td>
</tr>
<tr>
<td></td>
<td>• $25,000 per year to the Media Awareness Network for each license received by Cantel, excluding BC;</td>
</tr>
<tr>
<td></td>
<td>• $25,000 per year to Excite@SFU for use in collaboration with the Media Awareness Network if Cantel receives a license for BC;</td>
</tr>
<tr>
<td></td>
<td>• $150,000 one-time discount on the cost of fibre facilities previously purchased by BCnet if Cantel receives a license for BC;</td>
</tr>
<tr>
<td></td>
<td>• $150,000 one-time towards network services and facilities for Universities in each license area, excluding BC.</td>
</tr>
</tbody>
</table>
2.1 Industry Canada’s Evaluation Criteria

The Policy and Call Document, in Section 5.2.3, provides criteria upon which the applicants’ Learning Plans are to be assessed. These evaluation criteria include:

- Plans that are complete, cohesive, innovative and realistically feasible as part of a strong commercially viable application will be favoured;
- The extent to which the applicant has engaged the learning community will be considered; and
- Written endorsements, conditional agreements or contracts, preferably in direct consultation with the learning authority, will also be considered.

We believe Cantel’s plan fully addresses each of the above points.

2.1.1 Completeness, Innovation and Feasibility

Completeness

The Plan is complete in that it includes full details of the learning fund and the discount mechanism and the other benefits for each licensed area. Cantel’s Learning Fund will provide assistance in the following areas:

1. Access to affordable telecommunications;
2. Access to content and information technology; and
3. Development of new access in remote communities.

Each of these points is dealt with below:

1. **Access to Affordable Service**: Discounts, at-cost or preferential pricing on products, services and facilities from Cantel and from its telecommunications and information technology partners and affiliates represent the widest array of discounted products and services of any of the applicants. These products and services touch on every aspect of the learning community’s communications and content distribution needs.

2. **Content and Information Technology**: The majority of the learning community stakeholders informed Cantel that content development should remain the purview of the learning sector. Thus, Cantel will assist the Learning Fund in determining which initiatives to pursue, but will leave the actual learning content implementation to the experts within the learning community. However, Cantel and its content and technology partners such as Electric Library and Microsoft will provide the learning community with significant additional benefits such as access to leading edge
technology which can be used to augment the pure financial elements of the Learning Fund;

3. **Access in Remote Communities:** A major concern of the learning communities was access to data services in underserved areas. Cantel envisages that the Learning Fund can and will be used to build telecommunications infrastructure in areas outside of Cantel’s planned initial deployment, using either Cantel’s Fixed Wireless Service or other solutions (via Cantel or through a third party), as dictated by the learning community. We believe that this approach ensures that the right telecommunications solutions are implemented in the most deserving areas. Aside from the Fund, Cantel’s Fixed Wireless Service will reach approximately 70% of households on average in its license areas in the first five years. This will also assist some underserved communities.

**Innovation**

The Plan’s innovation is apparent in three areas.

- First, the revenue sharing commitment is being provided with a very beneficial and creative twist. Cantel is proposing to flatten the annual contributions by contributing the average of 2% of the Business Plan revenues expected over the ten-year license period starting in Year 1, with substantial guaranteed payments in Years 1-4. This ensures that the Fund will grow to a significant size in the early years, when the learning communities need it.

- The second area of innovation lies in the uniqueness of Cantel’s Fixed Wireless Service, which will be made available to the learning community with discounts from Cantel’s already low rates. It is the only service that will provide both data access and local telephony on Day One.

- The third area of innovation is Cantel’s offer to provide to the Learning Fund, all of its services and facilities at cost (roughly equivalent to a 50% discount), and the products and services of its affiliates and partners at preferential rates. Considering that the list of Cantel’s affiliates and partners includes the largest telecommunications and information technology companies in the world (AT&T, BT, Microsoft, 3Com), this is value that no other applicant can achieve.
Feasibility

Cantel's plan is both realistic and feasible for a number of key reasons. In Cantel's opinion, the much higher revenues that it is projecting in its plan are more feasible and more realistic than the lower revenues than are being forecast by the other applicants. This is because of a very substantial difference between our network architecture and their network architectures.

A review of the other applications shows that the other applicant's proposals are based on line-of-sight. Line-of-sight systems have a superficial appeal that Cantel believes is illusory. The theory behind a line-of-sight system is which the operator installs a large tower in the middle of a population centre in order to broadcast signals over a wide area. In theory, this provides a significant coverage area at a relatively low capital cost. At the individual receiving site, a long pole and microwave dish is attached on the roof of the customer premises and the signal is received. The proponents of these systems argue that they provide a low-cost method of delivering signals. This has been the theory behind the "wireless cable television" services which have been deployed for example in the United States and which have had a number of problems. The antenna that goes on the house to receive the signal, turns out, in many cases, to be a substantial installation, high above the house. It is unsightly and can put significant structural load on the roof of a house. Consumers have not surprisingly been very resistant.

Installation is also extremely expensive for the providers. The installation can take several hours. Specifically, installers try to get a line-of-sight connection, and in many cases, buildings and trees are a problem. There are cases where a successful installation is achieved in February only to be blocked in April by foliage from trees.

As a result of these deficiencies, many of the companies offering wireless television service have either filed for bankruptcy or are in receivership. Almost all are exiting from the 'wireless cable' business and entering the wireless Internet business. While there is optimism in the financial markets about this transition to Internet services, Cantel believes that line-of-sight is still a very problematic technology. The problem is not the service that is being offered: the problem remains with line-of-sight technology.

Cantel believes that the technology problem will only become worse with an Internet service. With Internet, there must be a return path for the transmission. We are not satisfied that line-of-sight technologies can effectively provide a return path. In the U.S., most of the remaining service providers are using a telephone line for the return path stating in some cases, that they will migrate to a wireless return path. Some of the applicants like Orbit admit in their application that they will be using a wireline return path and others are, in the abridged versions that Cantel has reviewed, silent on their plans. In Cantel's view, a telephone return path will not provide a viable option, as it is
asymmetrical in nature. Internet traffic is becoming more symmetrical as each year passes. In addition, the requirement of most subscribers to use their telephone and Internet service simultaneously precludes the use of a wireline return path.

Cantel has adopted a radically different architecture and is not using a line-of-sight system at all. We have obtained a technology from AT&T Wireless in the U.S. who have designed a state-of-the-art wireless system that is based on a cellular model. This technology is available today. Under this system a network of towers are spaced at cellular-like intervals. This provides a network where each tower broadcasts and receives in an omni-directional pattern. Cantel's approach therefore, does not require a large installation on the roof of the customer. Instead, a small unobtrusive, flat receiver panel is installed under the eaves of the home. More importantly the wireless return path of Cantel's network is also cellular-like in distance and allows for very efficient spectrum re-use because of the small cell sizes.

For a new entrant, a system of this type would require an expenditure of hundreds of millions of dollars for towers, assuming that appropriate sites can be obtained, which is becoming more and more difficult. Cantel is fortunate in that it already has the sites and towers for its cellular and PCS network, allowing the new fixed-wireless cell sites to be co-located on our own existing infrastructure. This infrastructure gives us an ability to have a much higher density of towers at a very low incremental cost and therefore utilize a technology that Cantel believes is more realistically feasible than a line of sight system.

For all of these reasons Cantel believes that its much higher Fund payments are more realistic and feasible than the lower payments projected by the other applicants. Our revenues are based on a commercially available fixed wireless technology that can be colocated with our extensive existing network of cell towers. The other applicants’ fund payments are largely dependant on the deployment of two-way Internet services over line of sight systems utilizing unresolved or problematic return path technologies.

### 2.1.2 The Extent to Which the Learning Community Has Been Engaged

In order to ensure that it heard from as wide as possible an array of stakeholders within the learning community, Cantel met with 25 different institutions and organizations situated throughout the five license areas for which Cantel applied. These include the four applicable Learning Authorities, Universities and their representative organizations, Library organizations, K-12 school boards and their representative organizations and content providers.

However, these discussions prove that Cantel made the effort to speak to the various learning stakeholders. However, this effort would be wasted if Cantel did not act upon the
information and direction that it received from the learning community. We believe Cantel has listened.

As can be attested to by the majority of the stakeholders whom Cantel met with during the development of its application, Cantel’s Learning Plan evolved significantly from its original conception. This evolution occurred mainly as a result of the comments received from various stakeholders and the give and take that took place between Cantel and the Learning Authorities. The letter from the Ontario Learning Authority (October 8, 1999), attached to Cantel’s Learning Plan, clearly reflects this sentiment:

"...We feel that the strategy that you have developed, which combines funding, learning and educational community governance discount and infrastructure access shows great promise to:

- support the principles summarized in the needs document;
- help the educational institutions and learning communities in Ontario to meet some of the challenges outlined; and
- access a range of enabling services, and capacity in the near and longer term.

...Thanks are extended to the Rogers Cantel team for the time and energy that they have devoted to discussing Ontario's needs with us and to obtaining and responding to feedback on an ongoing basis as the plan evolved."

We therefore believe the learning community was engaged by Cantel in the development of its Learning Plan and, more importantly, its requirements are reflected within the final version of the Plan.

2.1.3 Written Endorsements, Conditional Agreements or Contracts

Cantel received endorsements and letters of support from numerous organizations and institutions, representing all sectors of the educational community. These organizations are enthusiastic about both the high level of funding and the availability of an Internet and telephony service at significant discounts. Many organizations saw the latter as a way to decrease the high cost of communications at a time of shrinking budgets. In addition, many stakeholders identified Cantel’s offer to establish virtual Intranets and Centrex service for school boards at discounted rates as meeting key telecommunications requirements of the K-12 sector.

Cantel also received letters from the Learning Authorities for Ontario, BC and Alberta, all of whom stated that Cantel’s Plan meets many of the needs identified by the Learning Authorities during the application process. The following section illustrates how Cantel’s
Plan meets these requirements better and more completely than those of the other applicants.
3. LEARNING FUND PROJECTIONS

This is the first of three sections that directly compare the various Learning Plans with respect to the three main areas of concern of the Learning Authorities, namely Funds, Service Discounts and Network Deployment.

Table 2a provides a high level comparison of the Funds proposed by the various applicants. Specifically, the funding formulae, any minimum hard dollar commitments, estimates of fund worth after five and ten years and any limitations on Fund usage are compared.

The following are key conclusions that may be drawn from an analysis of Table 2a and Figure 2a (below):

- While Cantel’s revenue sharing commitment of 2% may be perceived at face value to be lower in percentage terms than other applicants, Cantel’s Fund is in fact considerably greater in dollar value than any of the other applicants, beginning in Year One.

Cantel’s Fund is larger because Cantel expects more revenues than other applicants. This is due to a number of important factors that differentiate Cantel’s proposal from those of the other applicants:

- Cantel’s Fixed Wireless Service is comprised of two components, telephone and Internet while other applicants appear to be offering only Internet, with vague references to other services in the future. Telephone service provides a high level of revenues, especially in the small business market. Other applicants, by virtue of their future or non-participation in this market, will have limited or no access to these potential revenues, particularly in the early years of their respective plans;

- Like other applicants, Cantel proposes to aggressively pursue wholesale customers such as ISPs. Unlike other applicants, its Fund is not based on or limited to wholesale revenues, but instead will be based on revenues from both wholesale and retail offerings. Other applicants, notably Telus and Inukshuk, base their funds solely on revenues from their wholesale business. Inukshuk itself defines wholesale rates to be 25% lower than retail. Even if Cantel’s service were identical to those of the other applicants, Cantel will generate more Fund-applicable revenues than its rivals;

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1 Telus Application, Public Version, Section 5.2.1; Inukshuk Application, Chapter 1 pp. 24, 27
2 Inukshuk Learning Plan
Cantel’s service is unique in a number of key areas, as identified above in Section 2.1.1. Unlike the service proposals of other applicants\(^3\), Cantel’s service does not depend on line-of-sight, nor does it use wireline return (thereby limiting customers' ability to use their telephone and Internet service at the same time). Other applicants’ customers will need very large rooftop antennae to gain access to the service, and in some cases even this would not be sufficient. Experience in both the U.S. and Canada illustrates that these negative attributes have played a significant role in the failure of a number "wireless cable" operations. Unencumbered by these shortcomings, Cantel’s revenue projections are therefore more realistic than those of its competitors;

In specific terms, Cantel’s Learning Fund is projected to eclipse its nearest rival (Orbit) by 45% ($38 million) after five years and by 30% ($36 million) by year 10. In fact, Cantel’s Fund is expected to exceed Telus' 10-year projection by the end of year 6 and Cantel’s estimate of Inukshuk’s 10-year fund value after year four. Moreover, unlike the revenue-dependant projections of other applicants, the $62 million projected for Cantel over the first four years is **guaranteed** to the Learning Authorities, starting with $15.5 million in the first year.

- **Cantel’s Fund is also the most flexible** in terms of limitations on usage of the Fund's proceeds. Unlike other applicants, notably Inukshuk and Telus, Cantel has placed no restrictions on the type of usage and permits the Learning Authorities to use the Fund to implement telecommunications solutions provided by Cantel or other third parties in both urban and remote areas that may be more suitable or cost effective than Cantel’s fixed-wireless service. This does not appear to be the case for either Inukshuk or Telus.

- **Cantel’s fund is also the most aggressive** with respect to the payments to the Learning Authorities in the early years of operation. Cantel **guarantees** $15.5 million in **each** of the first four years, for a total of $62 million. By contrast, Inukshuk guarantees only two times license fees, or slightly more than $2 million per year. The Telus application indicates some form of 'top-up' in the first three years, to a projected $17.7 million in total over the three years, only marginally more than Cantel’s Fund after only one year.

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\(^3\) Inukshuk Application, Chapter 1 pg. 30; Telus Application, Public Version, Section 5.4.1; Orbit Application, pp. 21, 30
### Table 2a: Learning Fund Comparisons: General

<table>
<thead>
<tr>
<th></th>
<th>% of Rev.</th>
<th>5 Region Estimate ($M)</th>
<th>Minimum Commitments or Early Top-up</th>
<th>Limits on Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>5 YR</td>
<td>10 YR</td>
<td></td>
</tr>
<tr>
<td>Cantel</td>
<td>2%</td>
<td>77.5</td>
<td>155.0</td>
<td>No limitations. Can be used for educational development or telecom services provided by Cantel or any other supplier.</td>
</tr>
<tr>
<td>Telus</td>
<td>5%</td>
<td>46.0</td>
<td>91.9</td>
<td>For educational development only. Not clear if Telecom services can be procured with funding. If yes, unclear if it can be procured from other than Telus.</td>
</tr>
<tr>
<td>Inukshuk</td>
<td>4%</td>
<td>17.7</td>
<td>53.2</td>
<td>To be used for educational content or to accelerate Inukshuk rollout to remote areas.</td>
</tr>
<tr>
<td>Orbit</td>
<td>5%</td>
<td>40.0*</td>
<td>120.0</td>
<td>Limited to “organizations that require special assistance” and only to “advance the use of broadband services”.</td>
</tr>
<tr>
<td>Craig</td>
<td>5%</td>
<td>N/A</td>
<td>N/A</td>
<td>Professional development and training only.</td>
</tr>
<tr>
<td>Telestream</td>
<td>5% after Yr 2</td>
<td>5.0*</td>
<td>15.0</td>
<td>0 in Years 1 and 2</td>
</tr>
</tbody>
</table>

*Includes more than the five areas for which Cantel is requesting licenses.

**Assumptions:**

1. Telus five-year projection calculated by dividing 10-year projection by two.
2. Ten-year projections for Inukshuk, Orbit & Telestream calculated by multiplying five-year projections by three.
Figure 2a: Learning Fund Comparisons: General

Fund Projections for All Five Regions

<table>
<thead>
<tr>
<th></th>
<th>5 Year Total</th>
<th>10 Year Total</th>
</tr>
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<tbody>
<tr>
<td>Telestream</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inukshuk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orbit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cantel</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$ Millions

$0 $50 $100 $150 $200

5 Year Total 10 Year Total
3.1 Regional Analysis of Learning Funds

Tables and Figures 2b through 2f provide a comparison of the funding committed to by each applicant by region. Year one, three, five and ten totals are provided since different applicants provided sums for different years. Given the lack of detail contained in submissions provided by the other applicants, Cantel has assumed optimistic assumptions to estimate certain of the other applicant’s Fund amounts for years five and ten to facilitate comparison. **It should be noted that Cantel is the only applicant to have submitted detailed numbers for each licensed area by year.**

In compliance with the Department’s Policy and Call document, Cantel’s proposals for each region, including the Learning Plan, have been made on a stand-alone basis. Thus, Cantel will fulfill the Learning Plan commitments for each area for which it gains a license regardless of whether it receives licenses for any of the other areas. Cantel questions whether Inukshuk is compliant with this requirement. Inukshuk’s applications are not stand-alone because Inukshuk proposes that an award of a license in one area will give rise to a benefit in another licensed area.

Analysis of Cantel's Learning Fund by geographic area as compared with the other applicants Learning Funds is presented below.
British Columbia

Cantel's analysis of the information submitted by the other applicants clearly indicates that Cantel’s Fund for British Columbia is over seven times greater than that of the next applicant in year one. Cantel's Fund is also three times greater in year three and over twice as large as the nearest competitor in years five and 10. Over the 10-year license period, Cantel expects to invest $30 million in its BC Learning Fund, $17 million more than the nearest competitor (Telus). The analysis is illustrated in Table 2b and Figure 2b below. Cantel’s guaranteed payment of $12 million by year 4, compares favorably with the other applicants’ 10 year forecasts.

Table 2b: Fund Projections for BC ($M)

<table>
<thead>
<tr>
<th></th>
<th>One Year Projection</th>
<th>Three Year Projection</th>
<th>Five Year Projection</th>
<th>Ten Year Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cantel</td>
<td>3.0</td>
<td>9.0</td>
<td>15.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Telus</td>
<td>N/A</td>
<td>3.0</td>
<td>6.5 (E)</td>
<td>13.0</td>
</tr>
<tr>
<td>Inukshuk</td>
<td>0.4</td>
<td>1.2*</td>
<td>2.8</td>
<td>8.4 (E)</td>
</tr>
<tr>
<td>Orbit (E)</td>
<td>N/A</td>
<td>N/A</td>
<td>7.1</td>
<td>21.3 (E)</td>
</tr>
<tr>
<td>Telestream (E)</td>
<td>N/A</td>
<td>N/A</td>
<td>0.9</td>
<td>2.7 (E)</td>
</tr>
</tbody>
</table>

* Based on minimum of 2 times license fees
(E) - Estimated

Assumptions:

1. For Telus, 5-year projection calculated by dividing 10-year projection by 2.
2. For Inukshuk, Orbit and Telestream, 10-year projection calculated by multiplying year 5 projection by 3.
3. For Inukshuk, year 3 projection is estimated based on their guarantee of at least twice the license fee.
Figure 2b: Fund Projections for BC ($M)
Alberta

Our analysis of the information submitted by the other applicants clearly indicates that Cantel’s Fund for Alberta is five times greater than the next applicant in year one, two times greater in year three, over one third greater in year five and over 10% greater than the nearest competitor (Orbit) in year 10. Over the 10-year license period, Cantel expects to invest $15 million in its Alberta Learning Fund, $4 million more than Telus and $9 million more than Inukshuk. The analysis is illustrated in Table 2c and Figure 2c below. Cantel’s guaranteed payment $6 million by year 4, compares favorably with the other applicants' ten-year forecasts.

Table 2c: Fund Projections Provided by Applicants for Alberta ($M)

<table>
<thead>
<tr>
<th></th>
<th>One Year Projection</th>
<th>Three Year Projection</th>
<th>Five Year Projection</th>
<th>Ten Year Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cantel</td>
<td>1.5</td>
<td>4.5</td>
<td>7.5</td>
<td>15.0</td>
</tr>
<tr>
<td>Telus</td>
<td>N/A</td>
<td>2.3</td>
<td>5.5</td>
<td>11.0</td>
</tr>
<tr>
<td>Inukshuk</td>
<td>0.3</td>
<td>0.8*</td>
<td>2.0</td>
<td>6.0 (E)</td>
</tr>
<tr>
<td>Orbit</td>
<td>N/A</td>
<td>N/A</td>
<td>4.5</td>
<td>13.5 (E)</td>
</tr>
<tr>
<td>Telestream (E)</td>
<td>N/A</td>
<td>N/A</td>
<td>0.6</td>
<td>1.8 (E)</td>
</tr>
</tbody>
</table>

* Based on minimum of 2 times license fees
(E) - Estimated

Assumptions:

1. For Telus, 5-year projection calculated by dividing 10-year projection by 2.
2. For Inukshuk, Orbit and Telestream, 10-year projection calculated by multiplying year 5 projection by 3.
3. For Inukshuk, year 3 projection is estimated based on their guarantee of at least twice the license fee.
Figure 2c: Fund Projections Provided by Applicants for Alberta ($M)
Ontario

Our analysis of the information submitted by the other applicants clearly indicates that Cantel’s Learning Fund for Ontario is five times greater than the next applicant in year one, over two times greater in year three, over one and a half times greater in year five and over 15% greater than the nearest competitor (Orbit) in years five and 10. Over the 10-year license period, Cantel expects to invest $55 million in its Ontario Learning Fund, $19.2 million more than the Telus and $31 million more than Inukshuk. The analysis is illustrated in Table 2d and Figure 2d below. Cantel’s guaranteed payment of $22 million by year 4, compares favorably with the ten-year forecasts of the other applicants.

Table 2d: Fund Projections for Ontario ($M)

<table>
<thead>
<tr>
<th></th>
<th>One Year Projection</th>
<th>Three Year Projection</th>
<th>Five Year Projection</th>
<th>Ten Year Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cantel</td>
<td>5.5</td>
<td>16.5</td>
<td>27.5</td>
<td>55.0</td>
</tr>
<tr>
<td>Telus</td>
<td>N/A</td>
<td>6.9</td>
<td>17.9 (E)</td>
<td>35.8</td>
</tr>
<tr>
<td>Inukshuk**</td>
<td>1.1</td>
<td>3.2*</td>
<td>8.0</td>
<td>24.0 (E)</td>
</tr>
<tr>
<td>Orbit (E)</td>
<td>N/A</td>
<td>N/A</td>
<td>15.9</td>
<td>47.7 (E)</td>
</tr>
<tr>
<td>Telestream (E)</td>
<td>N/A</td>
<td>N/A</td>
<td>2.0</td>
<td>6.0 (E)</td>
</tr>
</tbody>
</table>

* Based on minimum of 2 times license fees
**Includes Eastern Ontario
(E) – Estimated

Assumptions:
1. For Telus, 5-year projection calculated by dividing 10-year projection by 2.
2. For Inukshuk, Orbit and Telestream, 10-year projection calculated by multiplying year 5 projection by 3.
3. For Inukshuk, year 3 projection is estimated based on their guarantee of at least twice the license fee.
Figure 2d: Fund Projections for Ontario ($M)
Québec

Our analysis of the information submitted by the other applicants clearly indicates that Cantel’s Fund for Québec is five times greater than the next applicant in year one, 2.7 times greater in year three, two times greater in year five and one third greater than the nearest competitor (Orbit) in year 10. Over the 10-year license period, Cantel expects to invest $40 million in its Québec Learning Fund, $20 million more than Telus and over $25 million more than Inukshuk. The analysis is illustrated in Table 2e and Figure 2e below. Cantel’s guaranteed payment of $16 million by year four, compares favorably with the ten-year forecasts of the other applicants.

Table 2e: Fund Projections for Québec ($M)

<table>
<thead>
<tr>
<th></th>
<th>One Year Projection</th>
<th>Three Year Projection</th>
<th>Five Year Projection</th>
<th>Ten Year Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cantel</td>
<td>4.0</td>
<td>12.0</td>
<td>20.0</td>
<td>40.0</td>
</tr>
<tr>
<td>Telus</td>
<td>N/A</td>
<td>4.5</td>
<td>10.0 (E)</td>
<td>20.0</td>
</tr>
<tr>
<td>Inukshuk**</td>
<td>0.8</td>
<td>2.3*</td>
<td>4.9</td>
<td>14.7 (E)</td>
</tr>
<tr>
<td>Orbit (E)</td>
<td>N/A</td>
<td>N/A</td>
<td>10.5</td>
<td>31.5 (E)</td>
</tr>
<tr>
<td>Telestream (E)</td>
<td>N/A</td>
<td>N/A</td>
<td>1.3</td>
<td>3.9 (E)</td>
</tr>
</tbody>
</table>

* Based on minimum of 2 times license fees
**Includes Eastern Ontario
(E) – Estimated

Assumptions:
1. For Telus, 5-year projection calculated by dividing 10-year projection by 2.
2. For Inukshuk, Orbit and Telestream, 10-year projection calculated by multiplying year 5 projection by 3.
3. For Inukshuk, year 3 projection is estimated based on their guarantee of at least twice the license fee.
Figure 2e: Fund Projections for Québec ($M)
Eastern Ontario & Outaouais

Our analysis of the information submitted by the other applicants clearly indicates that Cantel’s Fund for Eastern Ontario and Outaouais is 7.5 times greater than the next applicant in year one, five times greater in year three, 2.5 times greater in year five and two thirds greater than the nearest competitor (Orbit) in year 10. Over the 10-year license period, Cantel expects to invest $15 million in its Quebec Learning Fund, $10.5 million more than Telus and over $11 million more than Inukshuk. The analysis is illustrated in Table 2f and Figure 2f below. Cantel’s guaranteed payment of $6 million by year four, compares favorably with the ten-year forecasts of the other applicants.

Table 2f: Fund Projections for Eastern Ontario & Outaouais ($M)

<table>
<thead>
<tr>
<th></th>
<th>One Year Projection</th>
<th>Three Year Projection</th>
<th>Five Year Projection</th>
<th>Ten Year Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cantel</td>
<td>1.5</td>
<td>4.5</td>
<td>7.5</td>
<td>15.0</td>
</tr>
<tr>
<td>Telus</td>
<td>N/A</td>
<td>0.9</td>
<td>2.3 (E)</td>
<td>4.5</td>
</tr>
<tr>
<td>Inukshuk (E)</td>
<td>0.2</td>
<td>0.6*</td>
<td>1.3</td>
<td>3.9 (E)</td>
</tr>
<tr>
<td>Orbit (E)</td>
<td>N/A</td>
<td>N/A</td>
<td>3.0</td>
<td>9.0 (E)</td>
</tr>
<tr>
<td>Telestream (E)</td>
<td>N/A</td>
<td>N/A</td>
<td>0.4</td>
<td>1.2 (E)</td>
</tr>
</tbody>
</table>

* Based on minimum of 2 times license fees
(E) – Estimated

Assumptions:
1. For Telus, 5-year projection calculated by dividing 10-year projection by 2.
2. For Inukshuk, Orbit and Telestream, 10-year projection calculated by multiplying year 5 projection by 3.
3. For Inukshuk, year 3 projection is estimated based on their guarantee of at least twice the license fee.
Figure 2f: Fund Projections for Eastern Ontario & Outaouais ($M)
4. Discounts

Table 3 below compares the discounts on products and services, if any, that each of the applicants has committed to providing. Unlike certain of its competitors whose submissions are, in Cantel's opinion, somewhat vague in terms of detail, Cantel's discount structure is extremely easy to understand. In addition, Cantel believes that even if all of the details of the other submissions were clarified to the advantage of the other applicants Cantel’s offering would still be better than, or at least equal to, those of its competitors.

**Table 3: Comparison of Discount Offerings**

<table>
<thead>
<tr>
<th>Discount</th>
<th>Comparison to Cantel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cantel</strong></td>
<td>10% off best posted rate for MCS service; At cost for all products and services bought through fund (typically 50% off retail).</td>
</tr>
<tr>
<td><strong>Telus</strong></td>
<td>Service provided at “discounts available to volume customers”.</td>
</tr>
<tr>
<td><strong>Inukshuk</strong></td>
<td>Wholesale pricing, typically 25% below retail rates due to avoidable costs. Preferentially priced Sun client/server package</td>
</tr>
<tr>
<td><strong>Orbit</strong></td>
<td>Revenues from commercial operations will “subsidize” pricing for educational institutions.</td>
</tr>
<tr>
<td><strong>Telestream</strong></td>
<td>25% off business rates; Wholesale pricing on hardware and software</td>
</tr>
</tbody>
</table>
The following are the key conclusions that may be drawn from analysis of Table 3:

- Cantel’s offer of facilities and service 'at-cost' to the Fund exceeds all other discounts provided by the other applicants. Moreover, Cantel's offer of preferential pricing from all of its affiliates and strategic partners provides the learning community with 'best' pricing for an extensive array of products and services from some of the largest communications companies in the world, including Rogers Cablesystems, Rogers Media, Microsoft, AT&T, BT and 3Com. No other applicant is offering this kind of choice or value.

- Cantel’s offer of 10% off best commercial pricing (including volume discounts) for its Fixed Wireless Service meets or exceeds the discounts being offered by the other applicants. Moreover, Cantel’s service is the only one that offers a full suite of telephony options on day one, which even before the Learning Plan and volume discounts, will be priced 30% below the telephone company’s rates. This option offers tremendous value to the learning community that no other applicant can match.

It is therefore Cantel's opinion that, the combination of the guaranteed dollar value of the Fund and the additional discount structure and benefits which Cantel has proposed exceed any of the promises made by other applicants.
5. Summary and Conclusions

1. Cantel’s Learning Plan meets the criteria set by Industry Canada in its Policy and Call document. It is complete, innovative and economically feasible. It demonstrably meets many of the needs of the learning community, which was fully engaged from the Plan’s original conception to finalization. The Plan has received the endorsement and support of stakeholders in every sector of the education community and from three Learning Authorities.

2. The Cantel Learning Fund is richer, more flexible and more aggressive than those proposed by any of the other applicants. Over the first five years, the Cantel Learning Fund is expected to amass 68% more than Telus’ and over four times more than Inukshuk’s. Cantel’s Plan guarantees $62 million over the first four years, when the learning community needs the resources most. The guaranteed payments over four years eclipse projections of Inukshuk’s fund after ten years, and is over two-thirds of Telus’ ten-year fund projections. In addition, Cantel sets no pre-defined limitations on the use of the Fund.

3. Cantel’s Plan provides discounts on both Internet and telephony services, as well as at-cost and preferential pricing for products, services and facilities bought through the Fund from Cantel, its affiliates and its partners. This value is unmatched by any of the other applicants.