



# **SUMMARY**

REGIONAL CONSULTATIONS

**NELSON**

FEBRUARY 12, 2004

**PREMIER'S TECHNOLOGY COUNCIL**

This document is a summary only of presentations made during the regional consultations in Nelson on February 12, 2004 and written submissions provided to the Premier's Technology Council. Every effort has been made to consider all input to be presented as accurately as possible. However, error or omissions may have occurred. Please notify the PTC of any significant inaccuracies at

[Premiers.TechnologyCouncil@gems8.gov.bc.ca](mailto:Premiers.TechnologyCouncil@gems8.gov.bc.ca).

## NELSON REGIONAL CONSULTATIONS

Date : Thursday, February 12, 2004  
 Time : 09:00 - 17:30  
 Location : Best Western Baker Street Inn &  
 Convention Centre  
 153 Baker Street, Nelson

In attendance:  
 - Jim Mutter, PTC President  
 - Bill Koty, PTC Council Member  
 - Len Juteau, PTC - Director of Operations  
 - Pratibha Sharma, PTC - Analyst

### AGENDA

Time	Organization	Name	Page
	Ktunaxa/Kinbasket Tribal Council/ Columbia Mountain Open Network	Don Maki, Gwen Phillips Susan Chew	1
09:00-09:45	Kootenay Association for Science and Technology (KAST)	Claudia Trudeau Bruce Hardy Jill Koziak	2
09:45-10:30	Selkirk College	George McIvor Darrel Hicks	4
10:30-11:00	Greater Trail Community Skills Centre	Kelvin Saldem	5
11:00-11:30	Nelson Technology Task Force	Douglas Jay Kevin Cormack	6
11:30-12:00	Columbia Mountain Open Network	Jeff Roberts	7
14:00-17:30			
	SD #20 - Kootenay Columbia	Larry Gray John Eggleton	8
	Castlegar Broadband Committee	Everette Surgenor	9
	Slocan Valley Economic Development Commission	Derek Murphy	9
	SD #10 - Arrow Lake	Alistair Skey	11
	SD #8 - Kootenay Lake	Doug Van Sickle Dan Dalgaard	11
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	General observers:		
	Nelson's Health Task Force	Gary Kalinski	
	Castlegar & District Public Library	June Stockdale	
	TELUS	Keith Bishop	

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**KTUNAXA/KINBASKET TRIBAL COUNCIL/ COLUMBIA MOUNTAIN OPEN NETWORK  
Don Maki, Gwen Phillips, Susan Chew (CMON)**

Gwen Phillips

- Nation comprised of 2,000 status members, 90 communities in interior region
- Nation is going through reform and change, examining budget and resources allocated to families, also restructuring at operational level – redefining governance authority
- Nation needs to house a lot of social solutions in education and health
  - Need to be accountable for all resources
  - Provincial reports have gaps in data, and no trends are available from either Provincial or Federal data
  - Bringing the education and health data together will help in determining trends and help with governance
- One of the priorities is to develop a database to integrate various First Nations data, the Nation is working with Sierra Systems to develop a database system
  - Data available from Federal and Provincial health databases for First Nations people on reserve will be connected for this database
  - Will achieve common authority & devolve authority in a meaningful way
  - Will allow for more meaningful use of local resources, and coordination of local resources in education and health, and will reduce dependence for data
  - Will be used as an e-learning tool for adult learning, as well as access to learning tools & support from other students
- Challenges to implementation of database project
  - security of shared data, and current hardware which is not suitable for the system
  - inadequate access to broadband, lack of connectivity stalls a lot of creativity
- Other issues
  - It is difficult for government to keep up with technological change, but it must recognize the needs and connect the dots, and realize the necessity for cooperation
  - Government should build trust through integration of services and sharing of data
  - Once services are integrated there may not be a need for bureaucracy and duplication, governments and departments will have access to the database system
  - Database is not fully funded, need support of Ministry of Health and Interior Health Authority, database costs \$600,000 to deploy and pilot
  - Need push with Provincial government, a few Ministries that will be affected are : Ministry of Children and Families, Health Planning and Health Services
  - Working with Interior Health Authority – they are interested in the same model and would like to use the system as well, and are willing to integrate
  - Once social information is available programs and resources can be used properly

Susan Chew

- Many communities need access to broadband, a big part of Heartlands will not be served by the digital divide project
  - Greater than 60% of the population in the area does not live in a community that has school, library or a hospital
  - Effects of broadband access in communities need to be examined – possibly through pilots over 6-18 months
  - Nearly \$14.8 million is lost in terms of wages of people who do not live in communities
- Broadband is the single most important tool that can support structures in rural communities and provide access to education and health services
  - One part of it is to aggregate demand to get beyond what is economical
  - Communities in these regions are dying and problems are compounded

- Technology will help all areas, currently a lot of people commute, companies can be relocated if broadband is available
- Broadband access in the region
  - Telus is currently providing infrastructure for only pockets of communities, and the level of services is dependent on where you live, service is sporadically available
  - Industry Canada guidelines specify that the network must be open access network, i.e. anyone can provide services at the same price on the same infrastructure
  - Satellite access has bandwidth and lag time issues
- Funding for the projects
  - Need matching funds 2.75-3.75 million dollars may be available through WEPA (Western Economic Partnership Agreement)
  - Need assess if funds such as Canada Structure Industry Fund, Municipal – Rural Infrastructure fund, and Rural Partnership programs can be used for this project
  - Municipalities are providing 40-45% of the funding to work with CMON
  - Federal funds for BC are lacking – BC is a have-not province
  - Atlantic provinces have been able to use federal funding to match federal funding
  - Mechanism for identifying sources is not in place, funding opportunities get identified and assigned quickly, mandate for some federal programs is not clear
  - Pilot project funding is still available but there is pressure to match funds to obtain it soon, as things may change and the dollars may not be available later

**Message to the PTC:**

- Ktunaxa/Kinbasket Nation is examining a database project to combine federal and provincial data (education, health). Trends obtained will help with governance and socio-economic development, currently available hardware and network is not sufficient
- Need help working with Provincial government - Ministry of Children and Families, Ministry of Health Planning and Health Services will be affected by the database project, there is a need to share information and build trust
- Definition of community is a problem, greater than 60% of the population in the area does not live in a community that has school, library or a hospital, therefore a big part of “Heartlands” will not be served by the digital divide project
- Broadband is the single most important tool that can support structures in rural communities and provide access to education and health services
  - One part of it is to aggregate demand to get beyond what is economical
  - Communities in these regions are dying and problems are compounded
- Funding for the projects
  - there is need for a mechanism to identify Federally and Provincially available funding as well as to identify ways of obtaining it
  - mandate of some organizations is not clear with respect to digital divide

**KOOTENAY ASSOCIATION FOR SCIENCE AND TECHNOLOGY (KAST)**

**Claudia Trudeau, Bruce Hardy, Jill Koziak**

Bruce Hardy

- KAST is on the ground connection to help Victoria (government) make a difference in the interior regions
  - There is an opportunity to provide assistance with economic policy and programming, KAST can support both industry and public sector
  - KAST can be a strong partner and can influence science and technology portion

- KAST has been a resource for Province to do outreach activities
- There is uncertainty regarding the future of KAST due to restructuring in the old Ministry of Competition, Science and Enterprise, reporting mechanisms and structure are unclear
- Autonomy has allowed KAST to meet local needs and be very effective
  - It was formed in 1995, and worked under Science Council until 1998
  - Funding and Program delivery flowed from that organization, it was a unreasonable reporting structure, as priorities were set in the Lower Mainland
  - Setting priorities and programs in Lower Mainland – builds the capacity in Lower Mainland and not the regions
  - There is also no grassroots buy in for programs that are not developed locally

Claudia Trudeau

- KAST has the priority to support the economic driver in region – innovation
  - Following a cluster based approach to build the technology industry
  - Local clusters are energy and power management, environmental and waste management technology, and software technology
  - KAST provides services to businesses, such as providing access to web portals and chats to get over the geographical barriers
  - Regional Council structure does not exist elsewhere in Canada
  - A cluster development expert was brought in who determined that regional clusters may not meet the definition of urban centers, the numbers don't match and there are mini-clusters
  - Various programs to help development of economy locally are underway

Jill Koziak

- KAST is trying to alleviate geographical barriers by using e-learning as a tool for cluster development and to achieve effective collaboration
- The requirements are access to Infrastructure, Training (mindsets) and Quality (access to pertinent information), and Environment (openness to discuss issues)
- KAST is moving to a system that uses online customer management software- in order to maintain effective relationships with the members
- Web portal allows everyone to schedule a time to view presentations at a set time or view them later, cluster experts are interviewed and the interviews are captured and presented to cluster members, discussion and feedback follow
- Combining traditional meeting approach with e-learning to meet skill development needs of region

Issues to overcome

- Province should not fence in organizations like KAST, and should allow for flexibility to be innovative and to provide services within the \$150,000 funding
  - Province should realize the value this funding has provided
  - It is not enough to have people in Lower Mainland deciding what happens to the regions
  - KAST partners with organizations such as National Research Council and Community Futures to collaborate and ensure that no duplication occurs, as well to ensure that available content meets needs
  - It is difficult to operate without funding, there is other support but not enough to sustain, within 10 years KAST may be able to self-sustain but need support now
- PTC should be an advocate and champion for the regional councils

**Message to the PTC:**

- Province should not fence in organizations like KAST, and should allow for flexibility to be innovative and to provide services within the \$150,000 funding

- It is difficult to operate without funding, there is other support available but not enough to be self-sustaining, 10 years later KAST may be able to self-sustain but need funding now
- People in Lower Mainland cannot determine the needs of local communities
- KAST provides the necessary support to regions for economic development through encouraging innovation and cluster development
- KAST is also working on providing e-learning tools to overcome geographic limitations and provide necessary skill development programs

## **SELKIRK COLLEGE (SC)**

**George McIvor**

- Selkirk College provides post secondary education to a large geographically diverse region, including Trail, Castlegar
- Internet connection capabilities
  - Major upgrade need had been identified, plan was to be part of the large project with SD (School District) #20 and CMON
  - a minor upgrade has a taken place from CITS (Common IT Services) and PLNet (Provincial Learning Network) which is barely sufficient to meet the needs and there is no capacity for expansion
- Digital divide is not narrowing it is widening, colleges in the outlying regions are worse off than the colleges in the urban areas
- Better connectivity means that savings can be achieved in areas such as outbound calling, campus to campus long-distance charges, currently spend \$¼ million annually for line charges, and this is a lot of waste which inhibits development
- Selkirk College has a Geospatial Research Center (SGRC)
  - Projects in forest management rely on distributed data sets, provide web mapping services and need extensive bandwidth capabilities
  - Forest companies approach Selkirk for data sets, servers are located at Selkirk locations, need access to a regional network
  - SGRC has a high profile and attracts researchers from a variety of places including University of Calgary, capacity to be a national research center
  - SGRC is an economic engine and requires high connectivity, currently terabytes of data needs to be transferred
  - Current bandwidth is 6Mbs, but need 100Mbs, prior to the CITS investigation Trail only had 1.5Mbs (connection was 25% of contracted capacity)
- Online Learning provided by Selkirk
  - Selkirk College delivers rich media enabled distance courses (BC Campus), using interactive media such as smart-boards and virtual classrooms
  - Lack of bandwidth as compared to urban colleges is a significant disadvantage towards offering these courses
  - Due to lack of access not all schools in the region can participate in the provincially recognized transition programs
  - 2 GB of web accessible data is available to students all over the world
- Service Issues
  - PLNet model provides maximum service during business hours, for distance learning and with learners in various countries better service levels are required
  - When connectivity goes down students are severely affected and are frustrated
- Current status - Selkirk



- Need for virtual courses and enrollment is increasing, colleges like Selkirk could help address the capacity problem in lower mainland through BC Campus
- A big issue is that students who take courses online are not eligible for student loans – this has been taken up with the Ministry but there has been no traction
- Real issues are with connectivity and there is frustration that the CMON project is still stuck in design phase
- ASI has set aside money for this significant cost of upgrading to T1 connections
- Government should consult local communities prior to building the network, as the communities can help reduce operational costs

**Message to the PTC:**

- Connectivity has an impact on economy in a region
  - Better connectivity means that savings can be achieved in areas such as outbound calling, campus to campus long-distance charges
  - Selkirk Geospatial Research Centre (SGRC) has the capacity to become a national research center and to be an economic engine but requires high connectivity
  - Selkirk College delivers rich media enabled distance courses but lack of bandwidth as compared to urban colleges is a significant disadvantage towards offering these courses
- PLNet issues
  - PLNet model provides maximum service during business hours – whereas for distance learning and with learners in various countries better service levels are required
  - A big issue is that students who take courses online are not eligible for student loans – this has been taken up with the Ministry but there has been no traction
- The major issue is with connectivity and there is frustration that the CMON project is still stuck in design phase

**GREATER TRAIL COMMUNITY SKILLS CENTRE**  
**Kelvin Saldern**

- It is a 7 year old non-profit organization, most of the revenue comes from government contracts (including Federal HRDC)
  - 10% is spent on administrative costs, rest is spent on social programs – such as hiring youth at risk, providing counseling and training in a nurturing environment
  - Work with KAST and School District #20
- Trail is different from other resource based communities in that the decline has been slower (as opposed to oscillating) but it has continued steadily
  - TeckCominco, the local industrial player, had 3-4,000 employees but now has 1,600 employees, high paying jobs have been lost
  - Average age is 50, 60% of the teachers are over 50
  - Would like to try and reverse the current demographic trend
- Working on a 3 year demonstration project with SFU and Selkirk College to 'Bridge the divide', \$2million will be invested in use of technology and innovative learning
- Would like the PTC to focus on infrastructure and what can be done with the infrastructure
- Use technology to keep cohort of university professors from SFU and Royal Roads who do outreach in the community
- Have invested in multimedia programs, with \$200,000 invested in Selkirk for knowledge programs in the regions

- 3-4 years after a program has been started new companies spring up and the workers need support
- would like to keep students locally, and train them to build the economy
- would like to employ local workers to build e-learning content and then sell it

**Message to the PTC:**

- Use of technology can help
  - address demographic trends in resource based communities
  - help develop outreach and knowledge based programs for communities
  - build local expertise and employ local people to build the economy
- Would like the PTC to focus on infrastructure and what can be done with the infrastructure

**NELSON TECHNOLOGY TASK FORCE**

**Douglas Jay, Kevin Cormack**

- Nelson is one of the lowest income areas
- Technology Task Force obtained submissions from people, two issues were business retention (examining barriers to growth) and innovation
- Broadband can bring about tremendous change
  - People relocate for lifestyle reasons and telecommute, the customer base is outside the region, knowledge workers carry their capacity with them
  - Definition of broadband versus high speed – 1-1.8 Mbits/s is defined as high speed and 100Mbits/s or greater is defined as broadband, at 1.2 Mbits/T1 there are still breakup problems, this definition comes from providers
  - Broadband can support telehealth, high data transfer is required for building health coop diagnostic capacity
  - VOIP saves 70% of telecommunication costs, with various departments connected through it (Police, Fire etc)
  - Many US companies are moving in this direction – getting the cities to use internet capacity as a utility by using Voice over IP
- City of Nelson does not want to be an ISP, but wants to have access to an open network, just like the electricity network – deregulation and investment is required
- The trend is towards municipal governments becoming more entrepreneurial, Municipal Act was a restrictive legal framework to deal with economic development issues
- Nelson owns its own hydro, and has operated in a business like environment for 100 years
- Need assistance with aligning Provincial interests with local interests

**Message to the PTC:**

- Broadband can bring about tremendous change
  - People relocate for lifestyle reasons and telecommute, the customer base is outside the region, knowledge workers carry their capacity with them
  - Broadband can support telehealth, high data transfer is required for building health coop diagnostic capacity
  - VOIP saves 70% of telecommunication costs, with various departments connected through it (Police, Fire etc)
- The trend is towards municipal governments becoming more entrepreneurial, Municipal Act was a restrictive legal framework to deal with economic development issues
- Need assistance with aligning Provincial interests with local interests

## COLUMBIA MOUNTAIN OPEN NETWORK (CMON)

Jeff Roberts

- CMON is taking a regional approach, working with communities that fall under the jurisdiction of Columbia Basin Trust (140 communities)
- Broadband provides opportunities for people to relocate
  - Especially relocating young families is important since schools have fewer children, and the region has mostly seniors
  - This area needs telecommunications to support the lifestyle, advanced telecommunications is more important in rural areas than urban areas
  - 128 of 140 communities are still not served currently, only 12 come under the current definition of 'community'
- There are two major requirements – high speed and low price of broadband – which give an 'unfair' advantage to rural areas over urban centres
  - High speed and low cost provides a lot of choice, price is part of the divide - \$6,500/month is not available service
  - Typically cost increases for areas that are further out, but the cost of providing access at 100 Mbits is same as 10Mbits
  - T1 at 1.5 Mbits in SuperNet (AB) community is \$75/month which compared to BC is \$700-\$7,000/month – because of this relocating a technology company becomes a challenge, due to proximity of such service in AB
  - SuperNet provides POP (Point of Presence) location at 100Mbits for \$650/month, with guaranteed 20 Mbit throughput
  - Once the infrastructure is installed the cost of sending additional bandwidth on same infrastructure is zero
  - Broadband is a moving target –residential customers are satisfied with ADSL but businesses are not satisfied
  - Voice over IP is the next digital divide
- Open Access Network
  - In order to solve digital divide, competition is needed in every community
  - Providers should compete one network, it is inefficient to build another network
  - Network ownership and management should be separated from service, with revenue sharing options
  - This model has been used successfully in Sweden – by redeploying existing expenditures, estimated \$80 million per year can be utilized elsewhere, 20% of this can be allocated to building a community network
  - The cost for such a network can be recovered in 10 years, once Broadband is achieved it can be extended beyond the current definition to all communities
- Network access needs something similar to the Rural Electrification Act (1936 USA), until 1920s rural areas had to pay for lines, in 1936 low interest loans allowed co-ops to build and they became telephony coops.
  - Conventional financing does not work for such a network
  - If MFA (Municipal Finance Authority) loans the money for 20 years at 2%, then paybacks can be achieved in 12-14 years
  - Federal and Provincial support should be matched – Provincial support in terms of business as a core tenant – to generate revenue stream
  - The \$6million grant from BRAND program could be lost if too much time is lost
- CMON has been working on the SD #20 project and the legal bills are quite high, with complex one sided agreements from the Provincial government, the process took from April 30,2002 to Dec 5,2003

- Any solution to the digital divide must deal with the access to infrastructure, control of support structures means that a company may compete unfairly, in the New Denver region (526 residences) Telus can provide service at \$150,000 compared to lowest DSL service starting at \$221,000
- Telus has not been very responsive towards the CMON projects, it has take a long time (June 30, 2003 to Feb 2004) just to get an estimate of how much it would cost to get the work done for 69 km of network, the cost for this process is borne by the applicant, Bell Canada has an expected 90 day turnaround

#### Recommendations for PTC

- Expand and/or revise definition of communities – must plan for them, do not need to commit to serve them
- Open Access to fiber network is required
- Streamlined access to existing Telus infrastructure is required
- Provincial support to make the BRAND programs successful is needed
- Digital divide committee should decide how purchasing power can be aggregated, and also needs to emphasize flexibility at community level, they should recognize the value of community and local players

#### Message to the PTC:

- Expand and/or revise definition of communities – must plan for them, do not need to commit to serve them
- Open Access to fiber network is required
- Streamlined access to existing Telus infrastructure is required
- Provincial support to make the BRAND programs successful is needed
- Digital divide committee should decide how purchasing power can be aggregated, and also needs to emphasize flexibility at community level, they should recognize the value of community and local players

#### SCHOOL DISTRICT (SD) #20 - KOOTENAY COLUMBIA

Larry Gray, John Eggleton

#### Larry Gray

- Technology and Education
  - Traditional – in walls –schools haven't changed a lot, teaching has changed a little, and technology is assisting to a greater degree, providing increased options
  - Growth outside the walls is increasing – 2% children who enrolled were outside walls – which is significant when compared to the 5% decline in student population
  - Outside walls choices are made due to not fitting into the system or the need for a more flexible education system, delivery system is tailored for individual programs
- Pitfalls
  - We can never keep up with the resources required (hardware, software, service demands, support)
  - Technology infrastructure has monopolies, transmission of information is restricted
  - Unrealistic expectations – the social dimension of technology in education – need to realize that children need the support of other children and teachers

#### John Eggleton

- Education online requires as much if not more adult support
- As a tool technology is very good, but we haven't recognized the need for training or determined what tools should be used on broadband

- Education conferences have had energy, innovation and power with thousands of teachers attending, but lately such enthusiasm has not been evident
- Need adequate support and resources to create a better society

**Message to the PTC:**

- Growth outside the walls is increasing – 2% children who enrolled were outside walls – which is significant when compared to the 5% decline in student population
- Technology infrastructure has monopolies, transmission of information is restricted
- Education online requires as much if not more adult support

**CASTLEGAR BROADBAND COMMITTEE**

**Everette Surgenor**

- We are transitioning from an industrial age, it's a new era where systems need to integrate with systems
- There is no diversity in communities, jobs are lost due to various reasons – technologies, or other parts of the world – and this creates unrest
- Digital divide is growing and the gap between have and have-nots is widening
- Need to educate people about information age and change mindsets
- Broadband provides an opportunity to attract technology into communities, and an opportunity for telehealth – save money and travel time
- PTC should recognize the problems of centralization and control
- Government should examine community needs and not look at it from business approach
  - AB has done it to enhance learning and telehealth options
- Businesses will not relocate in these regions at current broadband prices
  - Ranging from \$75 – 6000-7500 for T1
- There are 3 issues that need to be examined: role of monopolies in rural areas, developing policies for telecommunications and recognizing the need for working together

**Message to the PTC:**

- Broadband provides:
  - an opportunity to attract technology into communities, and
  - an opportunity for telehealth – save money and travel time
- PTC should recognize the problems of centralization and control
- Government should examine community needs and not look at it from business approach
- There are 3 issues that need to be examined: role of monopolies in rural areas, developing policies for telecommunications and recognizing the need for working together

**SLOCAN VALLEY ECONOMIC DEVELOPMENT COMMISSION**

**Derek Murphy**

- The area comprises of 6,500 people living in an unincorporated area, with no population clusters and dispersed population, and dependence on forestry sector
- Southern part of valley has maintained its population due to high level of natural amenities
- Northern part has suffered significant losses, there is broadband infrastructure but no access at reasonable rates

- Technology must play a major role for healthy rural economy, helps to maintain infrastructure – schools, health
  - barriers are lack of broadband, ADSL is not sufficient for education and other sectors
  - 40-60% of the population is outside the areas where ADSL and fiber optic is available
- Need a strategic framework for economic diversification
  - Economic policies target rural areas as undifferentiated from the other areas
  - Diverse components and drivers – need to create a context for technology to be useful
- PTC's role is seen as
  - Acknowledging progress and reporting on innovation and commercialization in rural areas – like the PIC report done on behalf of all the regional councils
  - Supporting SD #20 like pilot projects
  - Recognizing the need for a leading edge foundation – with capacity for analysis and infrastructure (physical and human)
- Broadband access has had no progress, limited and slow steps have been taken
  - It is not clear what the government has done so far
  - Government buys a short term vision by working with larger corporations, and not considering community efforts
  - Government should use its clout through purchasing power and policies
- There is a need for comprehensive analysis of rural economic drivers
  - Just broadband is not sufficient, services on broadband are required as well
- Rural areas have declining populations, but there is a viable future
  - There is a lot of frustration with national and Provincial government
  - Other states in the Pacific North West (such as Idaho and Washington) have been successful in transforming rural economies into knowledge based economies

**Message to the PTC:**

- Technology must play a major role for healthy rural economy
  - Helps to maintain infrastructure – schools, health
- Need a strategic framework for economic diversification
  - Economic policies target rural areas as undifferentiated from the other areas
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- There is a need for comprehensive analysis of rural economic drivers
  - Just broadband is not sufficient, services on broadband are required as well

**SCHOOL DISTRICT (SD) #10 - ARROW LAKE**  
**Alistair Skey**

- The school district has experienced a lot of problem dealing with Federal, Provincial and Municipal governments
  - There is a lot of miscommunication in between ministries – Ministry of Management Services and Ministry of Education
- Case Study – School District No.10 fiber build
  - Would interconnect School District and MCF (Ministry of Children and Families) facilities within Nakusp.
  - Share IT infrastructure over high speed network.
  - SD realizes ~\$30,000 savings over 1st 36 months.
- SD 10 provided cost benefit analysis, the network had capacity for the next 5-10 years, and the savings in communications could be re-allocated
  - Numerous changes and agreements have taken a really long time
  - PLNet agreed to the proposal in June 2002, but it has taken until January 2004 to gain any movement on the plan, SD Fiber build commences in January 2004
  - Interconnected a secondary and elementary school.
  - PBX replacement costs have paid for half of the build in the 1st month.

**Recommendations to PTC**

- Simplify the path to knowledge and authority, access to people who make the decisions
- Introduce flexibility to funding models to allow provincial funding to flow to locally developed solutions.
- Government communication to frontline personnel must improve – so they can provide correct information

**Message to the PTC:**

- Simplify the path to knowledge and authority, access to people who make the decisions
- Introduce flexibility to funding models to allow provincial funding to flow to locally developed solutions.
- Government communication to frontline personnel must improve – so they can provide correct information

**SCHOOL DISTRICT (SD) #8 - KOOTENAY LAKE**  
**Doug Van Sickle, Dan Dalgaard**

- Vision is to use technology to enhance education and bring about a corresponding change in schools
- A lot of driving time is spent for the are 15,000 sq. km area of the district
- Network services are not reliable – business is lost due to this, Korea wanted the full BC graduating program, it can be delivered but cannot promise the connectivity needed
- Some students have to take courses online and others choose to, there is a need to provide such opportunities to homes
- Declining enrollments means that it is difficult to provide courses
  - Collaborating with other schools – 14 out of 17 Principals want to go ahead
- Province needs to provide connectivity and also to collaborate

**Message to the PTC:**

- A lot of driving time is spent for the 15,000 sq. km area of the district
- Network services are not reliable – business is lost due to this
- Declining enrollments means that it is difficult to provide courses
- Province needs to provide connectivity and also to collaborate

**RACKFORCE HOSTING INC.**

**Brian Fry**

- Rackforce is a hosting service provider, clients all over the world
- People would come back to the regions if opportunity existed – this needs higher capital and investment in people
  - Lack of funding – especially in the 2<sup>nd</sup> round takes people away, BC needs to take chances & risk as is the norm in California
  - Broadband helps as a tool
- Digital divide can be solved by leveling the playing field – or making it unfair by giving advantage to rural areas
- BC should recognize the opportunities available
  - BC has access to good hydro power as opposed to states across the border
  - being connected to colleges and groups is a catalyst for opportunities
  - need access to financing and tools such as broadband

**Message to the PTC:**

- Digital divide can be solved by leveling the playing field – or making it unfair by giving advantage to rural areas
- BC should recognize the opportunities available
  - BC has access to good hydro power as opposed to states across the border
  - being connected to colleges and groups is a catalyst for opportunities
  - need access to financing and tools such as broadband

**BROADBAND COMMUNITY CHAMPIONS CONSORTIUM (BC3)**

**Matt Wenger**

- BC3 has 50 members – most un-served communities are members of BC3, have a rural and First Nations focus
- Need policy changes in telecom to encourage innovation
- Jobs growth and needs are in the services sector
- Goal is to increase the number of service providers
- Sweden – has a lot of applications in - gaming, alarm & remote monitoring, IT & remote backup, financial services, ASP, Video on demand, home education etc.
- Lack of growth in the regions can be addressed by two key policies
- Owner, operator should be different from the service provider – it is a proven model over 4 years (in Sweden), it should be similar to BC Hydro and roads
  - Innovation is impeded and the risk is too high in BC
  - Must build a new infrastructure or sign long term contracts
  - At any point the owner/operator can choose to compete and leverage ownership
- Pricing model must be based on service rather than broadband usage
  - Connectivity has 98% sunk cost, using more bandwidth has no increased cost



- Community Networks should be built – with new technology and new ideas
- Put communities in control
- BC3 is working towards creating province-wide network – to provide local flexibility, local innovation and access for everyone to health, education and economic opportunities

**Message to the PTC:**

- Need policy changes in telecom to encourage innovation
- Lack of growth in the regions can be addressed by two key policies
- Owner, operator should be different from the service provider – it is a proven model over 4 years (in Sweden), it should be similar to BC Hydro and roads
  - Innovation is impeded and the risk is too high in BC
  - Must build a new infrastructure or sign long term contracts
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  - Connectivity has 98% sunk cost, using more bandwidth has no increased cost

**CFDC CENTRAL KOOTENAY**

**Kay Ryan**

- VirtualMall.ca web design courses are taught to disabled persons and seniors
- 20 students participated in the program, 17 completed it successfully (85% success rate)
- 15 stores were established at the virtual mall on Oct 22
- It was covered by major papers and news media – as a unique project
- Currently 6 more regions offer it at Community Futures offices with 43 more students
- National funding is obtained for this
- 80 more participants are located in Nova Scotia, Alberta and Manitoba, providing distance learning to these participants

**Message to the PTC:**

- VirtualMall.ca web design courses are taught to disabled persons and seniors
- 20 students participated in the program, 17 completed it successfully (85% success rate)
- Currently 6 more regions offer it at Community Futures offices with 43 more students

**VALHALLA CONSULTING SERVICES**

**Grant Sutherland**

- Primarily serving the education market – also forestry, mining, logging and manufacturing operations
- Started working with SD20, worked with most districts, and First Nations, share K-12 curriculum as well as First Nations curriculum
- Provide services to School Districts – local developer, and on a growth curve
- Ministry put up a bid process that was granted to a company in East
- Need advice from PTC on how to maintain contracts with the government
- Sales are dropping off and cannot collaborate with Ministries – cannot talk about BC Businesses and cannot compete with government

**Message to the PTC:**

- Need advice from PTC on how to maintain contracts with the government
- Sales are dropping off and cannot collaborate with Ministries – cannot talk about BC Businesses and cannot compete with government

**SCHOOL DISTRICT (SD) #51 - GRAND FORKS**

**Michael Strukoff**

- SD 51 has 2000 students over a geographically wide area, there is a need for distance learning
- The area was planned as being part of Columbia Basin Trust but ultimately was not deemed as part of the region covered by the Trust
- Economically the area is linked to this region, but faces a lot of funding problems, it appears that funding is available only for the Kootenays
- The area is isolated and has unique problems
- Sunshine Communications is a local cable provider, PLNet has been provided through Sunshine Communications
- Would like to obtain fiber optic access through Sunshine, currently wireless access of 2Mbits/s is intermittent due to snow and water conditions
- Working at putting the fiber in parallel to Telus network and need support from the PTC
- If the district had a long term contract with PLNet then Telus would not have been able to get it, contract has expired and currently it is on month to month
- Need support for the federal initiative, need ½ million for all schools to have fiber access and to provide high speed access to small communities

**Message to the PTC:**

- SD 51 has 2,000 students over a geographically wide area, need for distance learning
- Economically the area is linked to the Columbia Basin Trust region but is not part of it, and faces a lot of funding problems
- Need support for the federal broadband initiative

**INTERIOR HEALTH AUTHORITY**

**Margarita Loyola**

- All hospitals are not connected on high speed internet
- Pharmacy telehealth applications are being used in Fernie and Williams Lake, Pharmacists at regional centre supervise prescriptions using videoconference for in-patients at hospitals
- Video consultations for Thoracic surgeons have been successful,
  - Video consultation is possible between Kelowna, Trail, Nelson and Cranbrook.
  - Post surgery consultations can be conducted this way and save travel time for just a half hour consult.
  - Thoracic Surgeons are on contract and do not bill, therefore this can work, billing problems exist in other areas and Tariff committee is working on these
  - Oncology also works well
- Committees and staff can meet over videoconferences, pathologists and physicians can also meet this way, 34 videoconferencing equipments are in place

- Tele-radiology is being worked on – this would allow the use of PACS (Picture Archiving Computer Systems) to help patients stay at home in their communities without being in hospitals
  - Nurses would provide overview by monitoring them at home, thereby eliminating the need for nurses or patients to travel
- Billing codes would help in two areas – Orthopedic surgery (connecting with Kelowna) and Psychiatry

**Message to the PTC:**

- All hospitals are not connected on high speed internet
- Telehealth is being used in Pharmacy, Thoracic Surgery, Oncology and consultations using videoconferencing
- Billing codes would help in two areas – Orthopedic surgery (connecting with Kelowna) and Psychiatry