

PROGRESS REPORT

GALIANO AND MAYNE BROADBAND INFRASTRUCTURE WORKING GROUP

Local Advisory Committee – CRD Economic Development Commission

OBJECTIVE OF THE WORKING GROUP

The objective of the working group is to stimulate island-wide¹ provision of access to broadband (high speed) internet service which meets current needs of residential and commercial users and makes reasonable provision for the future with respect to competition from potential additional internet service providers (ISPs) and evolution in customers' internet use patterns.

The working group will investigate and review plans of existing and potential ISPs offering services that reliably and fully meet a broad spectrum of internet applications (e.g., email, web surfing, audio and video streaming, voip telephone, web hosting, remote access, etc.) at prices levels within reach of typical potential users and appropriate to the level of service required². Undoubtedly ISP service hubs will require direct or microwave access to optical fiber; however, delivery of service to end users may be through wire-line, cable or wireless technologies.

Consideration will be given to the interest and capability of existing corporate ISPs in serving or extending service in the Islands, as well as the possibility of developing community-based organizations to facilitate service delivery. Opportunities to "piggyback" broadband distribution onto existing infrastructure will not be overlooked. Assistance of the Capital Regional District will be requested as appropriate in obtaining information and requesting support, commitment or involvement of relevant third parties.

WORKING GROUP ACTIVITIES

- initial meeting of Galiano members (Peter Midgley, Mike Hoebel, Roger Pettit) to review recent and ongoing investigation of broadband service expansion on Galiano and Mayne; review of a CRD Staff Report on broadband service to the SGIs; discussion of the Saturna Network Co-operative (SaturnaNet) example; decision to continue a coordinated effort with representatives from Mayne (Brian Crumblehulme, River Judd);
- preparation of a review of a CRD Staff Report on SGI internet service offering opinion that CRD staff do not fully appreciate the limited broadband coverage on Galiano and Mayne; fail to recognize the need of island wide coverage to support home-based economic activity; and inappropriately assume that cellular and satellite-based broadband provide adequate opportunity for service (for reasons of cost for cellular and service characteristics for satellite);
- meeting of the Galiano Working Group with Mayne representatives and agreement to work together;
- discussion with Beacon Wireless to review the company's plans and seek mutual cooperation in the expansion of internet access.

¹ including Mayne and Galiano Islands and adjacent smaller islands within their Local Trust areas (Gossip, Wise, Sphinx, Charles, Parker and Julia).

² While satellite and cellular internet services might already be seen as offering near universal broadband access, limitations in capabilities and pricing limit the ability of these services to fully meet potential user requirements.

PRELIMINARY FINDINGS

- the south end of Galiano (to Looking Glass Foundation Woodstone Residence) and a large portion of Mayne have access to broadband service from Shaw or Telus or a combination thereof. Capacity is limited but adequate for most users though reliability is an issue for some;
- parts of Galiano and Mayne have access to wireless broadband provided by Beacon Wireless from a facility on Mt. Bruce, Salt Spring Island. Service is dependent on line-of-sight to Mt. Bruce or one of a limited number of repeaters;
- Shaw is understood to have complete system design for extending coverage to all of Mayne (and possibly expansion on Galiano). Telus is understood to have unused optical cable running most of the length of Galiano. For both there appears to be no firm plan to expand beyond existing service areas; however, the possibility of expansion poses a significant business risk for others contemplating investment in broadband infrastructure;
- Beacon has adopted a policy of “organic growth” considering requests of Galiano and Mayne residents for service and extending service where it is economic to do so. This means that any location with line-of-sight to Mt. Bruce can obtain service and it may be possible to extend service to others if there is a sufficient customer base to provide a return on the substantial investment in a repeater installation;
- while SaturnaNet currently receives a wireless feed for its system from Mt. Bruce, the organization is considering the possibility of connecting to a point in the Lower Mainland using an existing TV tower on Saturna. This potential connection could have access to bandwidth considerably in excess of anticipated requirements at an attractive price and management has indicated the co-op would be prepared to act as a relay point for Mt. Bruce or potential hubs on Galiano or Mayne;
- overall the long term costs of wireless service from SaturnaNet and Beacon are similar when installation (co-op membership) and monthly fees are blended. Costs are somewhat higher than for basic broadband service in urban areas (particularly in the introductory periods offered by major corporate players);
- BC Hydro is considering installation of a new supply cable from Salt Spring to Pender with potential for inclusion of optical fiber in its hollow core. This does not appear to offer any direct and obvious opportunity for enhancing internet access on Galiano and Mayne;
- radio frequencies that were recently vacated with the termination of analogue television broadcasting are expected to be used to provide broadband internet connectivity in rural areas, but in the SGI context it is questionable whether this alternative would offer advantages over the already in-use higher frequency alternatives;
- while “towers” offer potential to raise the height of antennas and in turn expand the line-of-sight range to provide service to homes and business establishments, significant towers are not a prerequisite to expansion of wireless internet access. For the most part expansion of wireless internet service on Galiano and Mayne will depend on direct connections or relay hubs with small antennas (a couple of square feet or less) on roof tops, trees, cliff sides, etc. and radios using power comparable to small flashlights;
- the SGI internet market is small and already fragmented (cable, wire-line, dedicated wireless, cellular wireless, satellite wireless) and user requirements range from minimal (email and occasional web surfing) to high volume downloading (video streaming by multiple family members) to commercial users requiring both reliability and high and symmetrical uploading and downloading speeds. Any single access alternative is unlikely to be optimal for all users – fragmentation of the small market will prevail.

PLANNED ACTIVITIES

- prepare print-ready documentation to support application to possible future releases of Federal or Provincial funding to subsidize expansion of rural internet service;
- seek firm information from Shaw and Telus as to their future plans for potential improvement in service and expansion of coverage on Galiano and Mayne;
- work cooperatively with Beacon Wireless as the company responds to requests for service from potential new customers on Galiano and Mayne;
- request BC Hydro cooperation in access to poles on Galiano and Mayne for installation of demonstration neighbourhood internet connection hubs;
- request access to a CRD-approved SGI internet study budget to support costs of the hydro pole demonstration and the hiring of a summer student to conduct internet access market research on the Islands;
- continue to explore technical alternatives for delivery of broadband internet service and consider alternative organizational structures for service delivery and customer support.

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