Videoconferencing Policy and Procedures

BCNET Videoconferencing Pilot Project

May 6, 2004

Rev 1.1

Table of Contents

1. Introduction

This document outlines the policy and recommended procedures for use of the videoconferencing endpoint equipment being distributed to member IT groups. A good general source of information on videoconferencing is the ViDe cookbook: (http://www.videnet.gatech.edu/cookbook/).

2. Project Overview and Rationale

BCNET is working on a project to prototype videoconferencing services between its member institutions (UBC, SFU, UVIC, UNBC, BCIT) and a select set of other sites. The videoconferencing project will use the BCNET ORAN rather than traditional telephone lines to conduct remote meetings.

Suite 3200 SFU Harbour Centre
515 West Hastings Street, Vancouver, BC, Canada V6B 5K3
Phone: 604.822.1348 Fax: 604.822.9887
www.bc.net - info@bc.net

The reasons for undertaking the project are two-fold:

- Increasing interaction between administrators, faculty and staff of BCNET member institutions requires significant expense for travel between Prince George, Victoria, and Vancouver.
- Professional programs (medicine, law, commerce, etc.) are looking to more innovative delivery methods to increase reach.

The main users of videoconferencing facilities are:

- Inter-institutional organizations (BCNET, University President's Council, …) for committee meetings.
- UBC Medical School, for meetings regarding expansion to UNBC and UVIC.
- Researchers interested in collaborating (e.g., WestGRID)
- Executive MBA programs at SFU and other institutions.
- Continuing Legal Education at UBC and UVIC.
- Academic departments, for thesis defense, course delivery.

The project has procured a multi-point control unit (MCU), with the capacity of serving 12 endpoints in an audio/video conference. This "video switch" is only useful if all of the sites have videoconferencing endpoint gear (camera, microphone, and video processor) available, and properly set up in a conference room.

The goals of the project are:

- Develop a prototype videoconferencing shared facility that makes possible meetings between BCNET member sites.

- Ensure that there are an adequate number of end stations properly located and supported so that remote meetings can be held regularly, eliminating poor quality, high cost, traditional telephone conference use.

Suite 3200 SFU Harbour Centre
515 West Hastings Street, Vancouver, BC, Canada V6B 5K3
Phone: 604.822.1348 Fax: 604.822.9887
www.bc.net - info@bc.net

In order to make sure these goal are met, BCNET will provide each member IT group a Polycom unit for deployment in a conference room of on their premises. BCNET acquired a number of these Polycom endpoints, and will help the sites get them deployed. Use of these units will make it easy for remote BCNET meetings to take place, and cut travel costs.

Note that the IT group can use the endpoint for *any* type of meeting it chooses. There are *no restrictions* on the meetings held using the equipment.

BCNET is interested in

- Having more effective internal BCNET meetings with more participation from sites outside the Lower Mainland.
- Seeing the prototype facility used for many types of meetings and gaining experience with this new form of working.

3. Site Requirements and Responsibilities

A Polycom ViewStation will be provided for each site. The unit consists of a camera, echo-canceling microphone, and a console with remote control.

The recommendations for deployment of the endpoint are given below. *Only the ViewStation unit will be shipped to the site. A cart/stand and TV are necessary, and need to be provided by the site.*

The endpoint must be set up in a permanent spot and assigned a fixed IP address, as complications due to changes in network and environment make it difficult to achieve a dependable service. For any conference to take place, the IP address of the unit must registered with the MCU.

Any change in physical location or IP address of the unit must be communicated to BCNET.

Suite 3200 SFU Harbour Centre
515 West Hastings Street, Vancouver, BC, Canada V6B 5K3
Phone: 604.822.1348 Fax: 604.822.9887
www.bc.net - info@bc.net

Each site must also provide the following:

- Suitable location – the unit should be placed in small- to mid-sized conference room. The room should provide space for roughly 6 people to sit at a table within the 65-degree field of view of the camera. The room should have good acoustics without any obvious echo, and the lighting should be adjustable and provide well-lit faces. There must be a place for the endpoint to be located adjacent to the display device (e.g., usually on top of the TV) with convenient access to a power socket and network connection. The room should be generally available for booking, secure from theft, and located conveniently for those people most likely to use it.

- Network connection – the unit requires a switched 10/100Mbps Ethernet connection, and must exist outside any firewall. The switched Ethernet should have relatively low latency to the campus backbone and the BCNET ORAN. The connection must accept a normal wired ethernet jack and be capable of auto-negotiation of speed/duplex. Overall bandwidth requirements are no more than 768kbps, which is well within spec for BCNET member campus networks.

- Television – the unit requires a display device, which should be a television (20" or larger recommended). The sound output from the TV should be enough to fill the room.

- Audio-visual cart or stand – the unit, TV, microphones and remote should all be stored on a cart or permanent shelf within the room. The unit should be mounted on top of the TV. The TV should be mounted on the top of the cart at eye-level.

Suite 3200 SFU Harbour Centre
515 West Hastings Street, Vancouver, BC, Canada V6B 5K3
Phone: 604.822.1348 Fax: 604.822.9887
www.bc.net - info@bc.net

The setup we use at the BCNET office is shown below. The height of the setup is 107cm (42in).

Suite 3200 SFU Harbour Centre
515 West Hastings Street, Vancouver, BC, Canada V6B 5K3
Phone: 604.822.1348 Fax: 604.822.9887
www.bc.net - info@bc.net

BC.NET
Developing
BC's Advanced Networks

4. Administrative and Technical Contacts

Each site should name an administrative contact and a technical contact. The duties are outlined below.

4.1 Admin Contact

The admin contact should be responsible for non-technical matters pertaining to a particular endpoint. This includes:

- Receiving the endpoint from BCNET.
- Overseeing the installation of the endpoint by the tech contact.
- Distributing conference evaluation forms to users.
- Handling reservations for the use of the endpoint and its room.
- Contacting BCNET to book multipoint conferences on the MCU.
- Collecting conference evaluation forms and forwarding them to BCNET.
- Shipping the endpoint back to BCNET as required.

The admin contact is ultimately responsible for the endpoint and ensuring that the terms of use are followed, and should always be aware of its location and general status.

BCNET expects only a few regular meetings per week to be scheduled. The scheduling support demands should be no greater than the usual for managing an IT group's shared conference room.

One of the more important tasks for the admin contact to perform is to collect the evaluation forms from the participants. BCNET cannot evaluate the effects of this new meeting productivity tool without having the feedback from these forms. Please make sure they are returned in a timely fashion.

Suite 3200 SFU Harbour Centre
515 West Hastings Street, Vancouver, BC, Canada V6B 5K3
Phone: 604.822.1348 Fax: 604.822.9887
www.bc.net - info@bc.net

BC.NET
Developing
BC's Advanced Networks

4.2 Tech Contact

The tech contact should be responsible for technical matters pertaining to the endpoint.

This includes:

- Unpacking the endpoint when received from BCNET.
- Installing, configuring, and testing the endpoint with BCNET assistance.
- Ensuring that the hardware requirements are met.
- Ensuring proper configuration and operation of the local network.
- Troubleshooting problems reported by meeting users or BCNET.
- Moving and packing the endpoint as required by the admin contact.

The tech contact is the first line of support for technical problems reported by users of the endpoint, and should be available for technical support of conferences during normal business hours. The tech contact should always be aware of the location of the endpoint and its general status.

There will be only a few meetings per week at most, and we do not expect the support outlined to require significant effort.

5. Transfer of Title

The endpoint equipment remains BCNET property until March 31, 2005, after which it will be transferred to the participating member institution. BCNET reserves the right to recall the unit if found to be unused during this period.

6. Maintenance and Service Levels

The equipment must be kept in good condition, and BCNET must be notified if the endpoint is moved or is malfunctioning. Please note that this is a best-effort prototype service (business hours only).

Suite 3200 SFU Harbour Centre
515 West Hastings Street, Vancouver, BC, Canada V6B 5K3
Phone: 604.822.1348 Fax: 604.822.9887
www.bc.net - info@bc.net

7. Installation Details

The installation is straightforward, but detailed instructions are included here for completeness. Please refer to the quick start guide, release notes, and documentation provided with the unit, and contact Keir Novik (see Contacts below) if there are any questions.

The endpoint must be set up in a permanent spot, as complications due to changes in network and environment make it difficult to achieve a dependable service.

1) Unpack
    a) Unpack the Polycom shipping box.
    b) Check the contents of the shipping box against the packing list and for obvious signs of damage.
    c) Save the packing materials in case further shipping is required (e.g., for return to BCNET).

2) Place
    a) Locate the assembled audio-visual cart/stand in a suitable location.
    b) Place the TV on the cart/stand.
    c) Attach the Polycom ViewStation main unit securely to the top of the TV using the velcro fasteners.
    d) Ensure that the flow of air to the ViewStation main unit is unrestricted so it does not overheat.
    e) Place the microphone in a suitable location within the room (close to where the users will sit but not immediately in front of the TV speakers).

3) Prepare
    a) Ensure that the TV is turned off.
    b) Ensure that the power switch on the ViewStation main unit is in the off (0) position.
    c) Ensure that the network switch is set to auto-negotiate speed and duplex for the chosen port.

Suite 3200 SFU Harbour Centre
515 West Hastings Street, Vancouver, BC, Canada V6B 5K3
Phone: 604.822.1348 Fax: 604.822.9887
www.bc.net - info@bc.net

4) Connect
    a) Connect the audio/video cable (red, white, and yellow ends) to the TV audio/video inputs; refer to your TV documentation as necessary.
        i) For video (yellow), the S-Video connector is preferred over the RCA connector; use the RCA connector only if the TV does not accept S-Video input.
        ii) Connect the red and white audio connectors to the TV; if the TV has only one sound input then use the white connector.
    b) Connect the audio/video cable to the audio/video outputs on the ViewStation main unit (marked with the symbol of a TV), using the same connectors as the TV.
    c) Connect the microphone cable (brown ends) to either connector on the microphone.
    d) Connect the microphone cable to the microphone input on the ViewStation main unit.
    e) Connect the network cable (orange ends) to the LAN connector on the ViewStation main unit.
    f) Connect the network cable to the network wall port.
    g) Connect the power adapter to the power input on the ViewStation main unit.
    h) Connect the power cable to the power adapter.
    i) Connect the power cable to a power socket.

5) Configure
    a) Flip the power switch on the ViewStation main unit to the on (1) position.
    b) Turn on the TV.
    c) Using the remote control, navigate to the LAN settings via System Info->Admin Setup (the admin password is "778") and configure with a fixed IP address on your network.
    d) Using the remote control, navigate to the Near End Loop test via System Info->Diagnostics and confirm that you can see and hear yourself after a short delay.

Suite 3200 SFU Harbour Centre
515 West Hastings Street, Vancouver, BC, Canada V6B 5K3
Phone: 604.822.1348 Fax: 604.822.9887
www.bc.net - info@bc.net

6) Confirm
    a) Confirm installation with the nominated admin contact.
    b) Contact Keir Novik for an acceptance test.

It is recommended that the conference evaluation forms and usage instructions be provided in a place convenient for users. For example, trays could be attached to the cart with separate space for completed evaluation forms.

8. Acceptance Test

An acceptance test is necessary for each videoconferencing endpoint to avoid tests before each and every meeting. This procedure applies to all endpoints using the MCU, including endpoints distributed by BCNET as well as endpoints obtained elsewhere. The test involves calling the MCU from the untested endpoint to join a videoconference with a known-good endpoint. The audio and video quality are evaluated subjectively and the endpoint is accepted (perhaps conditionally) or rejected. This result may be adjusted by subsequent meeting evaluations. Standalone Polycom and Tandberg units will likely be accepted unconditionally.

9. Booking Procedure

To book videoconference meetings, admin contacts should get in touch with each other directly (see Contacts below) to resolve participant and resource availability. Ming Chau is the admin contact for the MCU, and should be contacted regarding its availability; confirmation of the final MCU booking must be made at least 24 hours in advance. When contacting Ming, please provide the date, time, and name of the meeting as well as the booking name of each of the endpoints involved. Please note that the start and end times are strictly enforced by the MCU and so you must allow for early start and overrun of the meeting. The default videoconference screen layout shows one site only, with the video image switching to other sites when they talk. Alternate screen layouts (such as four and nine sites shown on-screen simultaneously) can be provided by special request. Changes to conference settings will not be made during a meeting.

Suite 3200 SFU Harbour Centre
515 West Hastings Street, Vancouver, BC, Canada V6B 5K3
Phone: 604.822.1348 Fax: 604.822.9887
www.bc.net - info@bc.net

10. Contacts

For administrative matters, please e-mail or phone Ming Chau (admin@bc.net, 604-822-1348 option 1). For technical matters, please e-mail or phone Keir Novik (novik@sfu.ca, 604-268-7476). A spreadsheet listing the accepted videoconference endpoints and their admin and tech contacts is maintained by BCNET and distributed separately from this document.

Suite 3200 SFU Harbour Centre
515 West Hastings Street, Vancouver, BC, Canada V6B 5K3
Phone: 604.822.1348 Fax: 604.822.9887
www.bc.net - info@bc.net