Described Video Working Group

Questions arising from the CRTC letter to the DV WG, September 28, 2012

In its letter to the DV Working Group of September 28, 2012 the CRTC requires clarification and action on a number of items pertaining to the DV WG mandate.

For transparency, this list of questions has been circulated to all members of the DV WG. Some of the questions are for BDUs; some are for programmers; others are for general comment.

Please provide your response(s) under each question you answer, and email the document to Richard Cavanagh (richard@connectusinc.ca) by end of day **Tuesday, October 16, 2012**.

Thank you for your continued support of the DV Working Group.

Name of Company/Organization

Bell Aliant

Responses provided by (name, email)

Kevin Hastings, Chief Architect – Digital Broadcasting
Kevin.Hastings@bellaliant.ca
(506)-694-6735

1) <u>Pass through of DV for HD services</u>

a) Please provide the status of your company with respect to the pass through of DV for HD services.

At present, Bell Aliant does not pass DV content for HD services to its IPTV customers. Bell Aliant is currently testing a means of providing DV on HD channels utilizing a 192 Kbps or lower bit rate and expects to be in a position to implement this solution for those HD services supplied to the Company with a DV signal by December 30, 2012.

b) If your company is not yet passing through DV programming for HD services, please explain the reasons/technical impediments for this.

To date all HD services distributed by Aliant have an accompanying Dolby 5.1 Surround Sound audio component. Distribution of an additional audio service to carry specialized DV audio on an HD channel requires additional bandwidth which will vary depending on whether the DV audio format is mono, stereo or surround sound. The bandwidth required for an additional surround sound DV would not fit within the technical bandwidth allocation for Aliant's distribution system. Testing by Aliant has confirmed that it can add DV to an HD channel if the DV audio content is mono or stereo and encoded at a bandwidth of less than (or equal to) 192 Kbps.

c) If your company is not yet passing through DV programming for HD services, please identify the date when your company expects to do so.

See the answer to (a) above.

d) In the view of your company, what is an acceptable industry standard for the pass through of DV in HD?

Bell Aliant suggests that an acceptable standard for DV audio be:

a) Service type: Monaural, stereo format only
b) Format: PCM, analogue or Dolby Digital 2.0 (a.k.a. AC-3 stereo)
c) Bandwidth: 192 Kbps or less

e) Is there any additional information your company would like to provide with respect to the pass through of DV for HD services?

DV on HD services must include full-time audio presence, meaning that in absence of DV-specific content, the "regular" stereo or monaural programming must be present on the DV audio signal at all times. This ensures that no customers using DV as a set & forget option will get unusual silence due to their choice of using DV. For broadcast stations that generate customer complaints associated with this sort of silence, Bell Aliant may remove the DV configuration from that channel until resolved permanently by that broadcaster.

2) List of programming services that provide DV content

The process put in place by the DV WG to ensure the availability of an up to date list of programming services that provide DV content may not be working as expected.

a) Does your company/organization have any suggestions as to how this process could be improved? Please comment on the appropriate frequency for updates, where the list should be located and the role of the CRTC.

The process is not optimized at present. The Commission initiated the "list" of DV-supporting broadcasting services on a web-page through an initial DVWG report.   This list does not reflect whether or not the SRDUs even pass through the DV to the distributors, and at any time may contain incomplete information or errors.

The onus seems to be on the distributors to periodically check the website and if new DV-supporting stations are listed, they are expected to call or write for technical details, contact their SRDU for carriage confirmation, and then re-configure their distribution systems to carry DV on that channel. This methodology is inefficient. Further, it results in delays in distribution of new DV signals.

A better process would be to ensure that the broadcasters, and SRDUs formally inform the distributors when they have transitioned to full-time DV, and similarly, the SRDUs should be expected to formally inform the distributors when they configure their source signals to include DV. At that time, the broadcasters and SRDUs could communicate clearly to the distributors the technical information that will be required for distribution (PID identifier, service type, audio format, bit-rate etc. as defined above).

3) Audio silence

Persistent instances of audio silence are still occurring for at least one BDU.

a) What steps has/will your company take to ensure that instances of audio silence are completely eliminated?

Prolonged periods of DV audio silence plagued Bell Aliant's initial launches of DV with some broadcasters. In such cases, Bell Aliant referred the trouble reports to the broadcaster, and promptly disabled DV on that channel until fully resolved. There have been no incidents of DV audio silence in the past 12 months.

4) Simple access to DV

The Commission's September 28, 2012 letter to the DV WG states the following:

> …the Commission expects the DV WG to actively investigate and pursue one-button solutions and 'set and forget' in the shorter term, and that the DV WG and the industry should be able to report on the progress in this regard in the shorter term.

The Commission specifically notes the one-button remote available from Rogers.

a) Please explain the status of your company with respect to the availability of a one-button solution and set-and-forget functionality. If an alternative option is being pursued, please explain the option and the reasons for it.

Bell Aliant currently supports embedded DV format with set & forget operation. Prior to 2011 Bell Aliant's DV feature was a one-button activation process available to all customers with no need for special programming or hardware. That approach was seen as being very annoying by customers who often tripped the DV functionality by accident. Steps were taken to intrusively remind the customer of DV activation/deactivation with mixed results. Since Q1 2012 one-button activation is no longer supported because of the volume of customer complaints over accidental activation, and a multi-step process as reported earlier to the DVWG (and included in its May report). Since the initial filing Bell Aliant has worked to reduce the number of steps required to activate DV in its production system; the current process involves 11 key presses on the remote to permanently set DV on for all channels.

b) Please identify the timing for when your company will be able to provide a one-button solution and set-and-forget functionality to DV users.

Set & Forget is available now, however "one-button activation" is not on the road-map for implementation given previous issues that it generated. Bell Aliant would look to its peers at the DVWG and to the Commission for direction on further simplification work, and has concentrated on simplifying the number of steps involved in the meantime. Incidentally, Bell Aliant has had no expressions of concern about its current DV activation process in 2011 and thus far in 2012.

c) Please provide any other information relevant to the introduction of a one-button solution and/or set and forget functionality (e.g. are there any issues associated with these solutions).

No issues have been raised thus far with Bell Aliant's set & forget DV activation approach.

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Please provide your response(s) under each question you answer, and email the document to Richard Cavanagh (richard@connectusinc.ca) by end of day **Tuesday, October 16, 2012**.

Thank you for your continued support of the DV Working Group.

Name of Company/Organization

Bell TV

Responses provided by (name, email)

Alan Dagenais, Associate Director, Digital Systems

1) Pass through of DV for HD services

a) Please provide the status of your company with respect to the pass through of DV for HD services.

- Bell TV is not currently passing DV on HD channels.

b) If your company is not yet passing through DV programming for HD services, please explain the reasons/technical impediments for this.

- Bell TV has considerable bandwidth constraints and limitations on both its satellite and IPTV platforms.

  DTH

- The MPEG4 conversion must be completed in order to accommodate the addition bandwidth required for the DV audio channel on satellite.

  FibeTV

- With respect to Bell TV's IPTV service, FibeTV, new audio compression technology needs to be adopted in order to lower the bandwidth that is currently being used for audio to allow capacity for the additional DV bandwidth.

- FibeTV is a nascent IPTV service, having been launched in September 2010 in Toronto and Montréal and subsequently in Québec City in March 2012. Bell TV is in the midst of rolling out this service in its other licensed areas. As a new BDU, FibeTV is very much interested in providing a superior offering to its customers, which includes the provision of DV audio for HD services. However, as noted above, FibeTV currently has bandwidth constraints.

- In particular, FibeTV will not be able to take on the additional DV bandwidth on HD signals until it can adopt a new audio compression technology, Dolby Digital Plus, which will not be available from the vendor until the end of Q1 2013 at the earliest. This technology has been chosen based on how Bell TV provisions its fibre-to-the-node (FTTN) customer profile and consequently cannot be compared to how other IPTV providers may provide their service. In addition, choosing a currently available technology to compress programming signals in order to provide DV audio for HD services immediately will result in a substantially down-graded main signal quality for all of our customers. Consequently, Bell TV cannot take this route.

- Once the new compression technology becomes available, Bell TV has an implementation process that must be followed in introducing any new hardware and/or software into our existing infrastructure. It is anticipated that this implementation will take up to six months, including testing. As there is some upfront work that can be undertaken ahead of the new compression technology becoming available, Bell TV will begin this phase shortly in order to stay on track for the Q3 2012 roll-out of DV on HD services.

c) If your company is not yet passing through DV programming for HD services, please identify the date when your company expects to do so.

- With respect to DTH, the MPEG-4 conversion is scheduled to occur on November 29, 2012. We will require one or two weeks post MPEG-4 conversion to implement the technical phase of the carriage of the DV channels. Consequently, Bell TV, as well as its SRDU, expect to pass through DV on HD channels by December 2012.

- With respect to FibeTV, and for the reasons outlined above, Bell TV anticipates deploying DV on HD channels by Q3 2013.

d) In the view of your company, what is an acceptable industry standard for the pass through of DV in HD?

- Service type: Monaural, stereo format only
- Format: PCM, analogue or Dolby Digital 2.0 (aka AC-3 stereo)
- Bandwidth: 192 kbps or less

e) Is there any additional information your company would like to provide with respect to the pass through of DV for HD services?

- DV on HD services must include full-time audio presence, meaning that in the absence of DV-specific content, the "regular" stereo or monaural programming must be present on the DV audio signal at all times. This will ensure that no customers using DV as a "set and forget" option will get unusual silence due to their choice of using DV.

2) **List of programming services that provide DV content**

The process put in place by the DV WG to ensure the availability of an up to date list of programming services that provide DV content may not be working as expected.

a) Does your company/organization have any suggestions as to how this process could be improved? Please comment on the appropriate frequency for updates, where the list should be located and the role of the CRTC.

- Currently, the onus is on BDUs to periodically check the website and if new DV-supporting stations are listed, BDUs are expected to contact broadcasters for technical details. This methodology is inefficient and results in delays in distribution.

- Bell TV proposes the following complementary process to the current website listings. Broadcasters should formally notify BDUs when they have transitioned full-time DV, and similarly, the SRDUs should be expected to formally notify BDUs that the source signals include DV. As part of this notification,

broadcasters and SRDUs should communicate the technical information that will be required for distribution (i.e., PID identifier, service type, audio format, bit-rate).

This notification process already exists for other technical changes, such as HD conversion.

3) <u>Audio silence</u>

Persistent instances of audio silence are still occurring for at least one BDU.

a) What steps has/will your company take to ensure that instances of audio silence are completely eliminated?

Bell TV is unaware of any instances of audio silence that have occurred. Should we find instances of audio silence, Bell TV would immediately contact the broadcaster as we currently do for all signal outages to understand the underlying issue. If the broadcaster cannot resolve the issue in a timely matter, we would temporarily remove the DV audio track until the broadcaster resolves the issue.

4) <u>Simple access to DV</u>

The Commission's September 28, 2012 letter to the DV WG states the following:

> …the Commission expects the DV WG to actively investigate and pursue one-button solutions and 'set and forget' in the shorter term, and that the DV WG and the industry should be able to report on the progress in this regard in the shorter term.

The Commission specifically notes the one-button remote available from Rogers.

a) Please explain the status of your company with respect to the availability of a one-button solution and set-and-forget functionality. If an alternative option is being pursued, please explain the option and the reasons for it.

- Bell TV currently provides for a set-and-forget function on both satellite and IPTV.

- With respect to DTH, Bell TV is currently deploying software enhancements to most of our infield set-top models to enable easier access to the set-and-forget DV option by reducing it to a 3 to 5 button menu option. In turn, this enables a one button on/off toggle solution when set-and-forget is enabled. This feature has been incorporated into our existing remotes to ensure a broader audience and eliminate the need for additional hardware. This feature is available to both current Bell TV DTH selling set-top models as an opt-in service for the consumer.

- See attached Appendix entitled "How to enable the accessibility feature of your receiver".

- With respect to FibeTV, software enhancements will also be deployed when available.
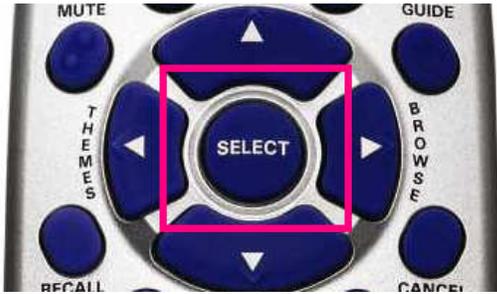
b) Please identify the timing for when your company will be able to provide a one-button solution and set-and-forget functionality to DV users.

- Bell TV currently provides for a set-and-forget function on both satellite and IPTV. The updated accessibility feature for DTH will available by end of 2013.

c) Please provide any other information relevant to the introduction of a one-button solution and/or set and forget functionality (e.g. are there any issues associated with these solutions).

- N/A.

How to enable the accessibility function of your receiver

Press the Menu button on the remote. This will display the Main Menu.

Press the number 3 button on the remote to display the accessibility menu.

Press the left arrow button to highlight the "Enable Toggle" field.

Press select button to select "Enable Toggle".

Press the select button to save the setting.
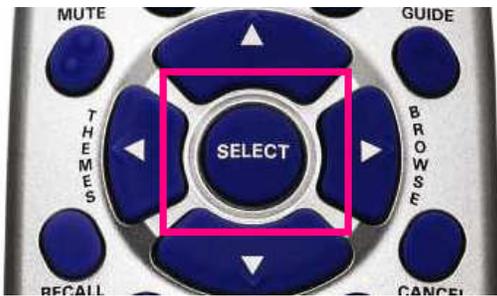
Press the cancel button on the remote to return to your programming.

You can now toggle Descriptive Video on and off by using the star button on the remote control.

In addition to the changes above, the Alternate Audio menu has been updated so that a new field "DV Audio" is available. DV Audio is automatically selected if you follow the steps above and you see "DV Audio:ON" at the upper left side of the screen.

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Please provide your response(s) under each question you answer, and email the document to Richard Cavanagh (richard@connectusinc.ca) by end of day **Tuesday, October 16, 2012**.

Thank you for your continued support of the DV Working Group.

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Name of Company/Organization

Cogeco Cable Inc.

Responses provided by (name, email)

Kevin Cuffling, Kevin.cuffling@cogeco.com,
Senior Director, Digital Video Engineering
514-764-4723

Eric Gilbert, eric.gilbert@cogeco.com
Digital Video Engineer,

Digital Video Engineering
514-764-4526

1) **Pass through of DV for HD services**

a) Please provide the status of your company with respect to the pass through of DV for HD services.
Cogeco currently passes DV for HD services where a second audio channel providing DV has been included.

b) If your company is not yet passing through DV programming for HD services, please explain the reasons/technical impediments for this.

Cogeco cannot provide DV for HD programming where the DV service is provided in a separate transport stream from the program carrying the primary audio. That is, the primary and DV audio streams must both be contained in the same transport stream as the video for Cogeco to provide the DV service. The STB is then instructed by the subscriber to decode either the primary or DV audio stream.

c) If your company is not yet passing through DV programming for HD services, please identify the date when your company expects to do so.
Cogeco is able to provide DV on any HD service where the DV audio is provided as a secondary audio program in the same transport stream that contains the primary audio stream.

d) In the view of your company, what is an acceptable industry standard for the pass through of DV in HD?

- Service type: Monaural, stereo format only
- Format: PCM, analogue or Dolby Digital 2.0
- Bandwidth: 192 kbps or less
- Audio level: as per CRTC regulations, DV audio average dialogue level should be normalized to -24 LKFS.
- Dolby metadata: where DV audio is provided as a pre-encoded Dolby AC-3 stream, valid metadata must be provided in the stream such as the dynamic range as well as the Dialnorm which must match the average dialogue level.

e) Is there any additional information your company would like to provide with respect to the pass through of DV for HD services?

The guidelines for the pass through of DV should recognize that BDUs require the ability to modify a DV audio stream so that it can be passed through the distribution network in such a way that it can easily (and intuitively) be activated by customers. For Cogeco, this means that ideally the broadcaster would set the language descriptor for the DV audio stream to "enm" for an English-language program (appearing as DVS English in the set-top box audio settings) and to "frm" for a French-language program (appearing as DVS French). These are standard ISO 639 language tags that would likely never be used otherwise. These language tags are used by Motorola settop boxes to recognize a DVaudio channel. If they are not set as such Cogeco is required to modify them to enm or frm.

2) List of programming services that provide DV content

The process put in place by the DV WG to ensure the availability of an up to date list of programming services that provide DV content may not be working as expected.

a) Does your company/organization have any suggestions as to how this process could be improved? Please comment on the appropriate frequency for updates, where the list should be located and the role of the CRTC.
Cogeco believes it would be appropriate for the CRTC to maintain a master list of all programming for which the CRTC expects BDUs to deliver DV services

List should include:

- All SRDU and TDRU programs as well as the originator of content.
- Table of all audio PIDs for each program, including which PID is primary, which is PID DV, and any other audio PID provided and what they contain.
- Monthly updates to capture new channels added by BDUs - BDUs reference the list for delivering SRDU or TDRU and configure their head end.

Furthermore, to avoid delays in the implementation of DV by the BDU, we believe that the broadcasters, and SRDUs should formally inform the distributors when they have transitioned to full-time DV, and similarly, the SRDUs should be expected to formally inform the distributors when they configure their source signals to include DV. .

3) <u>Audio silence</u>

Persistent instances of audio silence are still occurring for at least one BDU.

a) What steps has/will your company take to ensure that instances of audio silence are completely eliminated?

Cogeco Cable relies on Canadian programmers to ensure that their DV audio feed contains audio 24/7 (i.e. on this feed, DV audio is provided for described programs and the main audio is provided for all other programs).

Cogeco is not able to eliminate silence in cases where the DV stream is not carrying any usable audio information. Cogeco's only recourse at this time is to ask the signal supplier to include audio, DV or not, on the DV stream at all times.

From the subscriber perspective, where a subscriber's default settings are to decode the DV signal when present, then if the DV audio falls silent, the subscriber can toggle to the primary audio for that channel by pressing a one-button press on the remote control. (A to activate and B to deactivate)

4) <u>Simple access to DV</u>

The Commission's September 28, 2012 letter to the DV WG states the following:

> …the Commission expects the DV WG to actively investigate and pursue one-button solutions and 'set and forget' in the shorter term, and that the DV WG and the industry should be able to report on the progress in this regard in the shorter term.

The Commission specifically notes the one-button remote available from Rogers.

a) Please explain the status of your company with respect to the availability of a one-button solution and set-and-forget functionality. If an alternative option is being pursued, please explain the option and the reasons for it.

As of September 2012, Cogeco offers a complementary big button remote control, upon request, to customers who are blind or visually impaired (UEI 'Polaris' Atlas DVR/PVR' URC-1090 Model).

This remote control supports one-button solution with "set-and-forget" functionally on all set-top boxes available in Ontario and in Quebec.

The "A" button of the remote is pre-programmed to activate DVS with a single button push. It can be found by going to the left-most button of the 9-button row near the top of the remote (about 3 inches from the top). The "B" button of the remote is pre-programmed to deactivate DVS with a single button push.

b) Please identify the timing for when your company will be able to provide a one-button solution and set-and-forget functionality to DV users.

It is already being offered.

c) Please provide any other information relevant to the introduction of a one-button solution and/or set and forget functionality (e.g. are there any issues associated with these solutions).

No issues at this time.

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Name of Company/Organization

Rogers Communications Partnership - answers (provided in bold) refer to Rogers Cable's pass through of described video (DV) audio, as a BDU.

Responses provided by (name, email)

Peter Kovacs (peter.kovacs@rci.rogers.com)
Provide on October 18, 2012

1) Pass through of DV for HD services

a) Please provide the status of your company with respect to the pass through of DV for HD services.

Rogers Cable passes through DV for all HD services identified in the list of programming services providing DV content, which was filed with the CRTC on February 29, 2012. The DV audio feed has been assigned to the following DV language descriptors: enm for DVS English; frm for DVS French.

b) If your company is not yet passing through DV programming for HD services, please explain the reasons/technical impediments for this.

Rogers Cable does not currently pass through DV for the HD version of APTN.   As noted in the February 29 list, we only receive one audio feed (main audio) in the incoming APTN-HD signal.

c) If your company is not yet passing through DV programming for HD services, please identify the date when your company expects to do so.

Rogers Cable will pass through DV for the APTN-HD signal once APTN supplies us with a DV audio feed.

d) In the view of your company, what is an acceptable industry standard for the pass through of DV in HD?

From a technical perspective, broadcasters and satellite relay distribution undertakings (SRDUs) should adhere to the following guidelines when providing DV audio content for HD programming services to BDUs:

1) **DV must be provided as a distinct audio stream multiplexed along with the original video programming and main audio. For example, services delivered in compressed format to a BDU should contain a separate PID for DV audio. Services delivered via HD-SDI (uncompressed) should contain an additional embedded pair(s) carrying DV audio.**

2) **The broadcaster/SRDU must clearly identify to the BDU the availability and technical specifications of DV audio stream.**

3) **For listener comfort, and to comply to CRTC regulations concerning audio loudness, DV audio average dialogue level should be normalized to -24 LKFS.**

4) **Where DV audio is provided as a pre-encoded Dolby AC-3 stream, valid metadata must be provided in the stream such as dialnorm, which must match the average dialogue level, as well as dynamic range.**

5) **Where DV audio is provided as a pre-encoded Dolby AC-3 stream, the ISO 639 language descriptor must be a different value from the main audio stream.**

e) Is there any additional information your company would like to provide with respect to the pass through of DV for HD services?

Because each BDU's solution for handling DV audio is slightly different, the guidelines governing the pass through of DV should recognize that BDUs require the ability to manipulate a DV audio stream so that it can be passed through the distribution network in such a way that it can easily (and intuitively) be activated by customers. For Rogers, this would mean changing the language descriptor for the DV audio stream to "enm" for an English-language program (appearing as DVS English in the set-top box audio settings) and to "frm" for a French-language program (appearing as DVS French).

2) <u>List of programming services that provide DV content</u>

The process put in place by the DV WG to ensure the availability of an up to date list of programming services that provide DV content may not be working as expected.

a) Does your company/organization have any suggestions as to how this process could be improved? Please comment on the appropriate frequency for updates, where the list should be located and the role of the CRTC.

Rogers recommends that the CRTC issue a bulletin advising all Canadian programmers (licensed and exempt) that if they intend to offer DV audio either pursuant to a condition of licence or on a voluntary basis, they must provide the necessary information[1] to the CRTC. This should include the date it plans to start offering DV. Notice should be provided to the CRTC at least 60 days in advance of launch date. We also believe that the CRTC is in the best position to maintain the list going forward. Recognizing that the existing list (filed February 29, 2012) captured all such Canadian services offering DV audio at that time, the resources required to update the list on an on-going basis should be minimal.

Whenever the CRTC receives notice, it could then update the list posted on its website and, at the same time, announce this change in the "Today's Releases" section of the website. It would then be incumbent on BDUs to monitor the CRTC's website for any updates and support the pass through of the DV audio on the launch date. The objective is to get notice out to all BDUs well in advance so that network changes can happen in time to facilitate the pass through of DV audio. This centralized process would most effectively support the collection and dissemination

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[1] The formats (SD and/or HD) for which DV audio is provided; confirmation audio is provided on the DV feed 24/7; quality/size of audio stream.

of DV launch plans to BDUs on a timely basis. The update of the list by the industry, on a less frequent basis (e.g. quarterly or even monthly), could result in programming services offering DV audio for an extended period of time before BDUs are made aware of this fact and are able to configure their distribution networks accordingly.

3) <u>Audio silence</u>

Persistent instances of audio silence are still occurring for at least one BDU.

a) What steps has/will your company take to ensure that instances of audio silence are completely eliminated?

Rogers Cable relies on Canadian programmers to ensure that their DV audio feed contains audio 24/7 (i.e. on this feed, DV audio is provided for described programs and the main audio is provided for all other programs).

4) <u>Simple access to DV</u>

The Commission's September 28, 2012 letter to the DV WG states the following:

> …the Commission expects the DV WG to actively investigate and pursue one-button solutions and 'set and forget' in the shorter term, and that the DV WG and the industry should be able to report on the progress in this regard in the shorter term.

The Commission specifically notes the one-button remote available from Rogers.

a) Please explain the status of your company with respect to the availability of a one-button solution and set-and-forget functionality. If an alternative option is being pursued, please explain the option and the reasons for it.

As of July 2009, Rogers offers a complementary big button remote control, upon request, to customers who are blind or visually impaired (UEI 'Polaris' Atlas DVR/PVR' URC-1090 Model). The "SWAP" button at the bottom left of the remote is pre-programmed to activate/deactivate DVS with a single button push.

Rogers also support "set-and-forget" functionally on the following set-top boxes available in Ontario:

Cisco 8300HD
Cisco 4250HD
Cisco 8642HD

Cisco 4642 HD

We also support the set-and-forget feature on all Motorola set-top boxes in Rogers' cable systems in New Brunswick and Newfoundland.

The other cable boxes offered by Rogers do not have the option to enable set-and-forget. Therefore, if the customer is tuned to a described program, the boxes will tune to the main audio and display "Invalid" as the secondary audio option in the "Quick Settings" instead of DV English or DV French. By selecting the "Invalid" option, the customer will still be able to hear the DV audio. However, this will need to be done on a channel-by-channel basis for these cable boxes.

Rogers has worked with Accessible Media Inc. to update the "Accessing DV" section of its website (http://www.ami.ca/ami/dv/services/index.aspx) to include information about the set-and-forget feature and how it can be enabled/disabled using the set-top boxes noted above:

- **Rogers has introduced a "set-and-forget" feature as an added benefit for our visually-impaired customers. Through the cable box settings, a customer can enable the DV audio feed once.**
- **Once this is done, whenever the customer tunes to a channel with described programming (assuming it is available), they will receive the DV audio for a described program and the main audio for all other programs. The DV audio feed no longer needs to be activated on a channel-by-channel basis.**
- **Set-and-Forget can be enabled by pressing the Settings button twice, selecting "Audio Described" and selecting "enabled".**
- **When a customer selects the settings button via their remote, they will view "DV English" or "DV French" (depending on the language of the programming service) on the secondary audio, if and where is it available and supported.**

This update includes information on how to activate the set-and-forget feature using the various remote controls provisioned by Rogers, including the Polaris big-button remote.

b) Please identify the timing for when your company will be able to provide a one-button solution and set-and-forget functionality to DV users.

c) Please provide any other information relevant to the introduction of a one-button solution and/or set and forget functionality (e.g. are there any issues associated with these solutions). **Nothing to add.**

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In its letter to the DV Working Group of September 28, 2012 the CRTC requires clarification and action on a number of items pertaining to the DV WG mandate.

For transparency, this list of questions has been circulated to all members of the DV WG. Some of the questions are for BDUs; some are for programmers; others are for general comment.

Please provide your response(s) under each question you answer, and email the document to Richard Cavanagh (richard@connectusinc.ca) by end of day **Tuesday, October 16, 2012**.

Thank you for your continued support of the DV Working Group.

Name of Company/Organization

SaskTel

Responses provided by (name, email)

Tim Maw, tim.maw@sasktel.com)
Dieter Hamm, dieter.hamm@sasktel.com

1) <u>Pass through of DV for HD services</u>

a) Please provide the status of your company with respect to the pass through of DV for HD services.

SaskTel currently passes through HD DV for channels that include DV as a secondary audio stream with the HD service.

b) If your company is not yet passing through DV programming for HD services, please explain the reasons/technical impediments for this.

SaskTel cannot provide DV for HD programming where the DV service is provided in a separate transport stream from the program carrying the primary audio. That is, the primary and DV audio streams must both be contained in the same transport stream as the video for SaskTel to provide the DV service. The STB is then instructed by the subscriber to decode either the primary or DV audio stream.

c) If your company is not yet passing through DV programming for HD services, please identify the date when your company expects to do so.

SaskTel is able to provide DV on any HD service where the DV audio is provided as a secondary audio program in the same transport stream that contains the primary audio stream.

d) In the view of your company, what is an acceptable industry standard for the pass through of DV in HD?

- The primary and DV audio must be synchronized and in the same transport stream as the video associated with the audio programs.
- MPEG-2 transport streams should be used to deliver video, the primary audio, and DV audio streams.
- The DV audio should be 192 kbps or less.
- For programs where their is no DV audio, then the DV audio stream must carry a "copy" of the primary stream, where the primary stream is encoded at the same bit rate and format as the DV stream. That is, the DV stream must be a constant bit rate whether the audio is described or not

e) Is there any additional information your company would like to provide with respect to the pass through of DV for HD services?

None at this time

2) List of programming services that provide DV content

The process put in place by the DV WG to ensure the availability of an up to date list of programming services that provide DV content may not be working as expected.

a) Does your company/organization have any suggestions as to how this process could be improved? Please comment on the appropriate frequency for updates, where the list should be located and the role of the CRTC.

SaskTel expects the CRTC to maintain a master list of all programming for which the CRTC expects BDUs to deliver DV services

List should include:

- All SRDU and TDRU programs as well as the originator of content.
- Table of all audio PIDs for each program, including which PID is primary, which is PID DV, and any other audio PID provided and what they contain.
- Monthly updates to capture new channels added by BDUs - BDUs reference the list for delivering SRDU or TDRU and configure their head end.

3) Audio silence

Persistent instances of audio silence are still occurring for at least one BDU.

a) What steps has/will your company take to ensure that instances of audio silence are completely eliminated?

SaskTel is currently not able to eliminate silence in cases where the DV stream is not carrying any usable audio information. SaskTel's only recourse at this time is to ask the signal supplier to include audio, DV or not, on the DV stream at all times.

From the subscriber perspective, where a subscriber's default settings are to decode the DV signal when present, then if the DV audio falls silent, the subscriber can toggle to the primary audio for that channel by pressing a one-button press on the remote control.

4) Simple access to DV

The Commission's September 28, 2012 letter to the DV WG states the following:

> …the Commission expects the DV WG to actively investigate and pursue one-button solutions and 'set and forget' in the shorter term, and that the DV WG and the industry should be able to report on the progress in this regard in the shorter term.

The Commission specifically notes the one-button remote available from Rogers.

a) Please explain the status of your company with respect to the availability of a one-button solution and set-and-forget functionality. If an alternative option is being pursued, please explain the option and the reasons for it.

The Microsoft Mediaroom product that SaskTel uses to deliver video services to subscribers includes both set-and-forget, and one-button functionality. The subscriber can set the default behavior on each set top box to either decode the primary audio or to decode the secondary audio, in this case DV, if it is present. If so desired, the subscriber can then toggle back and forth between the default and non-default audio streams using a single button on the remote control. Single button only applies to the current channel being viewed, so that if the subscriber changes channels, then the set top box will decode the audio stream for which the default mode of the set top box has been configured. The default mode of the STB can be reconfigured at any time by the subscriber.

b) Please identify the timing for when your company will be able to provide a one-button solution and set-and-forget functionality to DV users.

Currently available.

c) Please provide any other information relevant to the introduction of a one-button solution and/or set and forget functionality (e.g. are there any issues associated with these solutions).

None at this time

Shaw) Direct

November 12, 2012

Mr. Richard Cavanagh
Connectus Inc.

Via email: richard@connectusinc.ca

Dear Richard:

Attached are the responses of Shaw Direct to the questions posed by the CRTC pertaining to Shaw Direct.

Yours truly,

Cynthia Rathwell
Vice President, Regulatory Affairs

<u>Pass through of DV for HD services</u>

a) **Please provide the status of your company with respect to the pass through of DV for HD services.**

   Shaw Direct passes through DV content for Canadian HD services.

b) **If your company is not yet passing through DV programming for HD services, please explain the reasons/technical impediments for this.**

   N/A

c) **If your company is not yet passing through DV programming for HD services, please identify the date when your company expects to do so.**

   N/A

d) **In the view of your company, what is an acceptable industry standard for the pass through of DV in HD?**

   Shaw Direct submits that an acceptable industry standard for the provision of DV in HD is one which requires 192 Kbps or less.

e) **Is there any additional information your company would like to provide with respect to the pass through of DV for HD services?**

   Although Shaw Direct is launching a new satellite (Anik G1) that will use MPEG 4 compression, most of the transponders on its legacy satellites use MPEG 2 compression. The provision of DV must be made in the context of finite bandwidth on a large number of transponders, and a large percentage of Shaw Direct's customers are unable to receive transmissions in MPEG 4. Accordingly, the need for a DV industry standard of 192 Kbps or less is essential to ensuring that the needs of all of Shaw Direct's customers – those without and with visual impairments – can continue to be met.

2) **List of programming services that provide DV content**

The process put in place by the DV WG to ensure the availability of an up to date list of programming services that provide DV content may not be working as expected.

a) **Does your company/organization have any suggestions as to how this process could be improved? Please comment on the appropriate frequency for updates, where the list should be located and the role of the CRTC.**

Shaw Direct respectfully submits that efficiency and certainty in the provision of DV service would be improved if broadcasters were to notify BDUs in writing and in advance with respect to when the begin provide DV service. In addition, we would recommend that broadcasters also provide the technical specifications required by the BDU to effect a pass-through. As well, we recommend that broadcasters provide a technical contact so that any issues that that arise concerning the pass-through of described video on a particular programming service may be expeditiously discussed and addressed.

3) Audio silence

Persistent instances of audio silence are still occurring for at least one BDU.

a) **What steps has/will your company take to ensure that instances of audio silence are completely eliminated.**

Although Shaw Direct has encountered instances of audio silence, these appear to have been essentially resolved. In the future, should we encounter audio silence, we will contact the programmer, advise them and attempt to resolve the issue as quickly as possible. Accordingly, the technical information and contact information that we propose be submitted in connection with notification of DV availability should be kept up to date.

4) Simple Access to DV

The Commission's September 28, 2012 letter to the DV WG states the following:

...the Commission expects the DV WG to actively investigate and pursue one- button solutions and "set and forget" in the shorter term, and that the DV WG and the industry should be able to report on the progress in this regard in the shorter term.

a) **Please explain the status of your company with respect to the availability of a one-button solution and set-and-forget functionality. If an alternative option is being pursued, please explain the option and the reason for it.**

Shaw Direct currently provides set-and-forget functionality based on a 2 key-stroke entry. To activate DVS services on any current generation Shaw Direct receiver, customers must press the "HELP" button followed by the "D" button on the remote control. This feature will stay active until turned off using the same key sequence (HELP, D).

b) Please identify the timing for when your company will be able to provide a one-button solution and set-and-forget functionality to DV users.

Shaw Direct has already introduced a one-button solution on all current generation Shaw Direct receivers. This solution provides a simple, one-step switch from the standard audio stream to an available described video audio stream (as depicted by the DVS icon on the guide). To utilize this feature, a customer must be watching a video stream containing a DVS audio stream, without concurrently using a menu option. Pressing the "SOURCE" button on the Shaw Direct remote control will switch the standard audio stream to the DVS audio stream on the channel being watched.

c) Please provide any other information relevant to the introduction of a one-button solution and/or set and forget functionality.

N/A