



Status report on the WBU-ISOG DSNG profiles initiative

December 5th , 2012

Prepared by: Anthony Caruso, Director, New Broadcast Technologies



MTS media technology services

STM services technologiques aux médias



INTRODUCTION



The DSNG profiles project is all about helping to bring news to the broadcast center quickly and efficiently



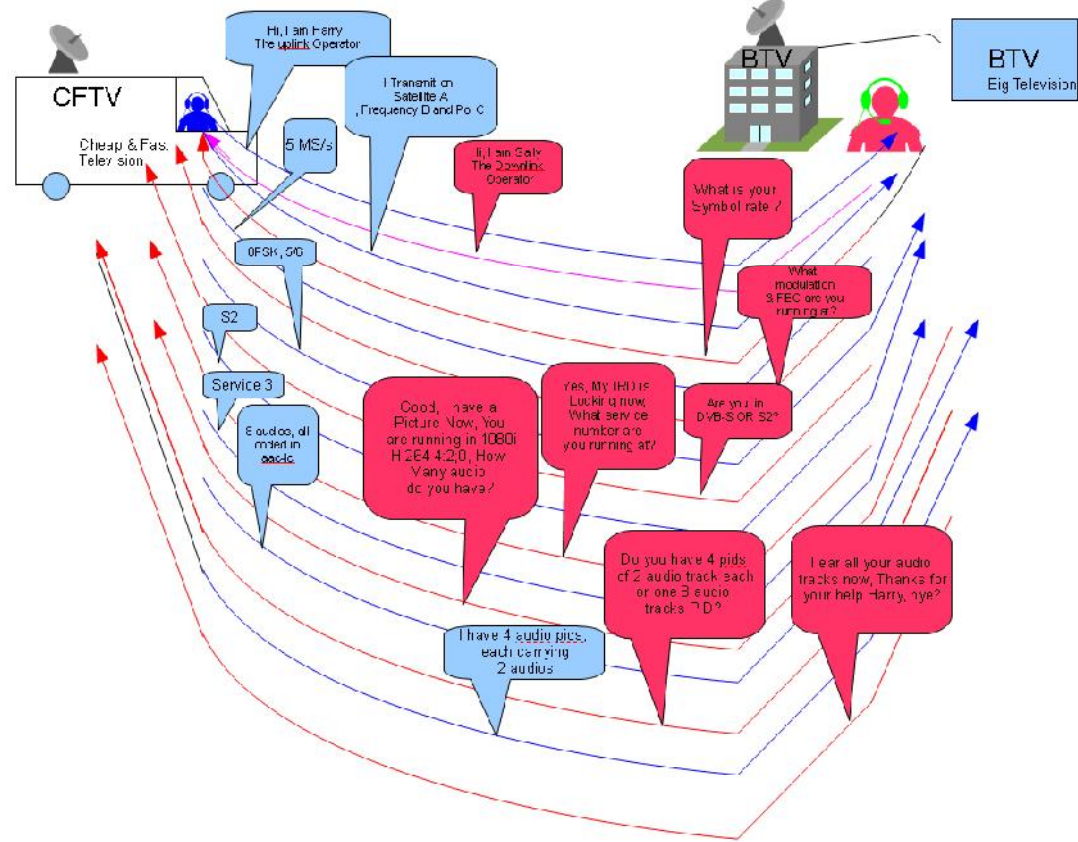
Background

- ❖ The WBU-ISOG DSNG Profiles project has been a NABA initiative from the start.
- ❖ The proposed DSNG profiles serves one goal:
 - ❖ Improving the connection time and reliability of DSNG links in the field by virtue of:
 - ❖ Creating a standard work environment for DSNG workers
 - ❖ Streamlining the communication required to establish a link





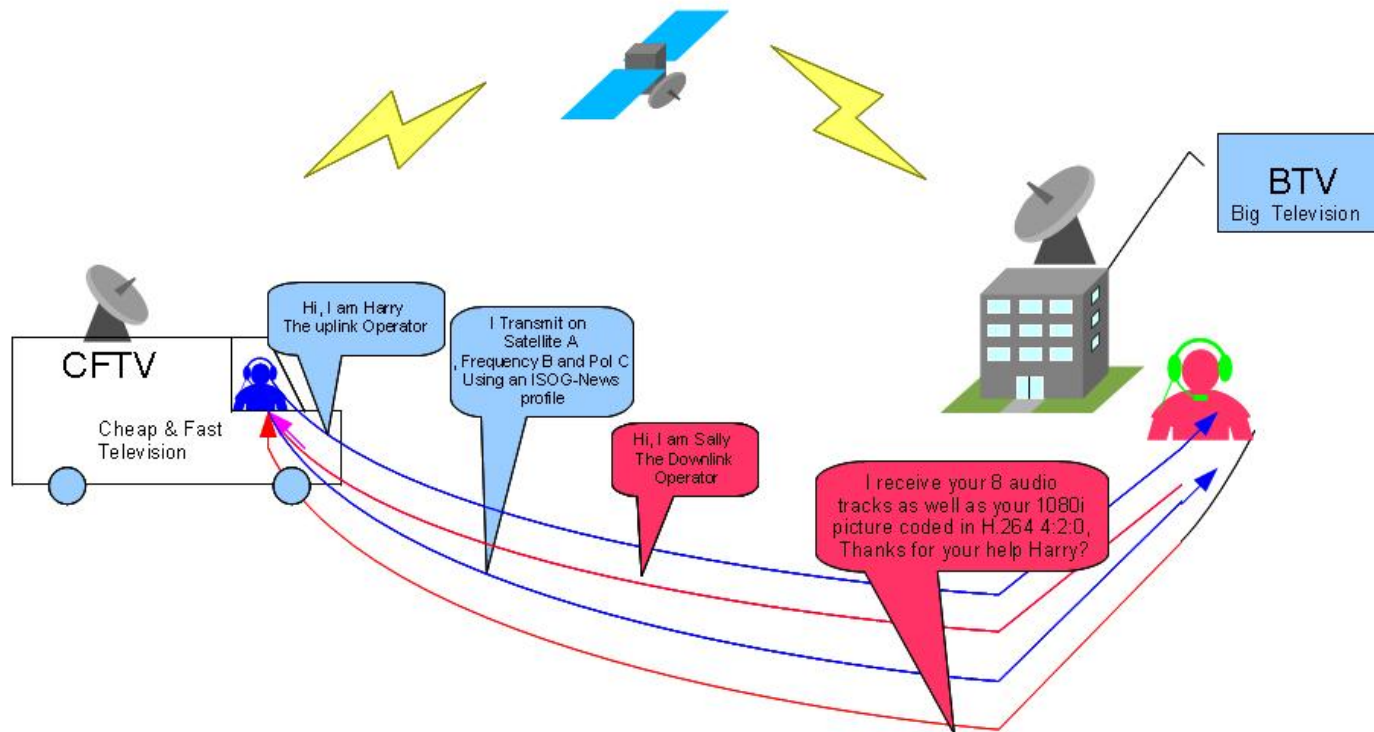
Excerpt from Today.'s communications required to establish a DSNG link





Example of the required communications required to establish the same DSNG link with a standard profile

Figure 2, Typical Dialog Required to Initiate an SNG Transmission Using a Standard profile (Isog-news)





The process

- WBU-ISOG decide to take on this project
- An Ad-Oc group has formed: (reps from: Newtec, Ateame, ABC, EBU, SES, & NHK)
- The group held 4 teleconferences and came –up with a total of 13 potential profiles / levels
- The time has come to take the pulse of the industry on which profiles is more likely to be used in practice
- A consultation document was drafted and circulated to the membership
- A presentation was made at the WBU-ISOG meeting audience on Nov 27th



The progress:

- The following broadcast unions have agreed to circulate the discussion document to their membership:
 - NABA
 - EBU
 - ABU
- Answers are expected for the end of this calendar year
- The document will be ready for approval for the next WBU ISOG Meeting
- The next potential steps are :
 - A file base version of the profiles
 - A sport gathering profile
- * The arab broadcast union representative could not attend the meeting and will have to be contacted separately, Arabsat is very much in favor of this project and will inquire about it to Mr Siliman



What are the proposed Profiles exactly:

The profiles have been called by their occupied bandwidth:

- ISOG-News3, 3 MHz Bandwidth
- ISOG-News4, 4.5 MHz Bandwidth
- ISOG-News6, 6 MHz Bandwidth
- ISOG-News9, 9 MHz Bandwidth



What are these profiles exactly ?

- The profiles are aimed at providing a faster acquisition in the field by minimizing the number of parameters that both uplink and downlink operators have to agree on prior transmission,
- The profiles Includes:
 - all parameters required for RF signal acquisition and to ensure a full lock at the transport stream level
 - the support for one video and four pairs of audio
 - Excludes all video and audio coding parameters that are normally set by the encoder to the decoder in a master/slave relationship





Levels:

Each profile is available at three levels:

- 1- Legacy - This mode is aimed at supporting the use of legacy equipment
 - DVB-S
 - MPEG-2
 - QPSK based on an a spacing factor of 1.35
 - Standard Definition only
- 2- Mid Range - This level is aimed at power challenged links, where power efficiency is an issue
 - DVB-S2, based on a spacing factor of 1.20
 - H.264 video coding, MPEG layer 2 audio coding
 - QPSK
 - HD capable, although not aimed at fast action items



Levels

- 3- Efficient - This mode is reserved for applications with better than average link margins, where spectral efficiency is an issue
 - DVB-S2, based on a spacing factor of 1.20
 - H.264 video coding, MPEG layer 2 audio coding
 - 8PSK
 - HD capable



Profile	News3	News3	News3	News4	News4	News4	News6	News6	News6	News9	News9	News9	News9
Level	1 Legacy	2 Mid-range	3 Efficient	1 Legacy	2 Mid-range	3 Efficient	1 Legacy	2 Mid-range	3 Efficient	1 Legacy	2 Mid-range	3 Efficient	4 High Efficiency
RF coding	DVB-S	DVB-S2	DVB-S2	DVB-S	DVB-S	DVB-S2	DVB-S	DVB-S2	DVB-S2	DVB-S	DVB-S2	DVB-S2	DVB-S2
Order of modulation	QPSK	QPSK	8PSK	QPSK	QPSK	8PSK	QPSK	QPSK	8PSK	QPSK	QPSK	8PSK	16APSK
FEC	3/4	3/4	5/6	3/4	3/4	5/6	3/4	3/4	5/6	3/4	3/4	5/6	3/4
Symbol Rate (MS/s)	2.22	2.5	2.5	3.33	2.22	3.75	4.44	3.75	3.75	6.66	7500	7500	7500
Pilots symbol	NA	NA	yes	yes	NA	yes	Na	yes	yes	Na	Yes	Yes	Yes
Frame length	na	na	Normal	Normal	na	Normal	Na	Normal	Normal	Na	Normal	Normal	Normal
Resulting transport rate (Mb/s)	3.07	3.63	6.055	4.61	3.07	9.083	6.14	5.445	12.111	9.21	10.89	18.167	21.722
Occupied bandwidth(MHz)	3	3	3	4.5	4.5	4.5	6	6	6	9	9	9	9
Roll-off factor	1.35	1.35	1.2	1.35	1.2	1.2	1.35	1.2	1.2	1.35	1.2	1.2	1.2
Receiver threshold Es/N0	6.9	4.03	9.35	6.9	4.03	9.35	6.9	4.03	9.35	6.9	4.03	9.35	10.21

Saut de section (page suivante)






Discussion Document:

WBU
ISOG Master profiles table

Consultation Document on ISOG DSNG Profiles



Guy Bouchard, Chair, WBU-ISOG Ad-Hoc Group on DSNG Profiles
11/24/2012





The Poll

Doodle Connexion

Ensemble faisons un choix
Entrez votre nom dans le champ textuel ci-dessous et sélectionnez les options de votre choix.

Poll on WBU Isog-DSNG profiles

Simulation lancée par Guy Bouchard | 1 | 0 | il y a 10 jours
Où: 1400 Ren/ Levesques east, Montreal

1 participant

	ISOG News-3 level 1 (legacy)	ICOG News-3 level 2 (Mid-Range)	ISOG News-3 level 3 (ETCéti)	ISOG News-4 level 1 (legacy)	ICOG News-4 level 2 (Mid-Range)	ISOG News-4 level 3 (ETCéti)	ISOG News-5 level 1 (legacy)	ICOG News-6 level 2 (Mid-Range)	ISOG News-6 level 3 (ETCéti)	ISOG News-9 level 1 (legacy)	ICOG News-9 level 2 (Mid-Range)
G. Bouchard,							✓		✓		
votre nom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	0	0	0	0	0	0	1	0	1	0	0

No option: wn

Commentaire
Ajouter un commentaire ▾