

NorDig T report back from Excom

NorDig Excom meeting 11th March 2021 (webinar/Teams)

Agenda (draft):

Place: Webinar due to covid-19



Early/preliminary report back from NorDig Excom

Marked as "Excom" in blue text is outcome from this Excom meeting (decision, comments, tasks, feedback etc)

NorDig T (Per Tullstedt) extra report back from NorDig Excom meeting, mainly NorDig T related issues, not the official NorDig Excom report (which will come from our Excom secretary)

1. Agenda and report from previous meeting
2. Organizational matters
 - 2.1. Membership situation
 - 2.2. Finance matters, budget
 - 2.3. Organizational matters
3. Report from NorDig/T (Per T/NorDig T)
 - 3.1 Progress report
 - 3.2 NorDig technical specifications, draft proposal package v3.1.2
 - NorDig Unified IRD specification (IRD) v3.1.2, see slide 2-5
 - NorDig Rules of Operation (RoO) v3.1.2, see slide 2
 - NorDig Test Plan v3.1.2, see slide 2
 - 3.4 New mandates for NorDig/T for period 2021-2022, proposal see slide 9-10
4. Report from Industry
5. Reports from members, DVB and other
6. Any other business
 - 6.1 NGA/AC-4 presentation (status etc)
7. Date and place for the meetings in 2020/21

Green Text: text highlighted for Excom (waiting Excom decision/approval)

- Unified IRD specification
 - Latest published: NorDig IRD spec v3.1.1 (published September 2019)
 - New draft proposal IRD v3.1.2 d003 now ready – **Excom: OK as proposed**
 - main changes: video dHDR, audio AC-4, HbbTV v2.0.3, terrestrial (removal 700-800MHz)
 - Terrestrial, late proposal to remove 800MHz LTE interference (not yet incl in draft) – **Excom OK to remove**
 - Video dHDR (dynamic metadata HDR), see **slide 3 - Excom OK as proposed**
 - Audio NGA/AC-4 update/correction – adding clarifications and missing options, see **slide 4 - Excom OK as proposed**
 - HbbTV, proposal to update from v2.0.2 to v2.0.3 (OK for all except Samsung & maybe Sony), see **slide 5 - Excom OK as proposed**
 - **Proposal:** make reference list same in IRD, Test Plan & RoO (simplified future maintenance)
- Test Plan
 - Latest published: NorDig Test Plan v3.1.1 (published September 2019) + Test streams [NGA/AC-4 + old LTE interference stream]
 - New draft proposal Test Plan v3.1.2 d003 now ready - **Excom OK as proposed**
 - main changes: terrestrial (removal 700-800MHz) + removal of 800MHz LTE interference testing
 - (prev discussed TTML reference test streams, DVB has late 2020 published ref. test streams, made by IRT etc)
- Rules of Operation
 - Latest published: NorDig RoO v3.1.1 (published September 2021)
 - New draft proposal RoO v3.1.2 d002 now ready - **Excom OK as proposed**
 - main changes: SSU, HbbTV, terrestrial (removal 700-800MHz), General description
 - Updates mainly remaining parts from work with v3.1.1 (SSU, HbbTV, “intro” about broadcast chain)
- Remain & asking mandate for IRD+TestPlan+RoO v3.1.2 to update reference list, cross-ref & spelling and remove OLD/passed grace periods - **Excom OK as proposed, finalise draft into final draft, send to Excom for 2w silent approval**
- EPG/EIT metadata exchange format
 - Latest published: NorDig Metadata Exchange format specification v1.3, Guidelines v1.3.1 and Genre list v1.1, List of EPG/Event metadata in NorDig TVA format v.1.1.
- Website and admin
 - Propose/investigate adding e-mail reflector

Dynamic metadata HighDynamicRange (dHDR) video

- *NorDig Excom decided, Oct 2019*
 - *Decision to not mandate dHDR, but add if dHDR is used then signaling shall be as DVB specified and IRDs shall not be disturbed by formats not supported. AP for NorDig T to prepare proposal.*
- **NorDig T/video dHDR – draft proposal inside draft IRD spec v3.1.2, March 2021**
 - *(Oct2020 – two proposals: draft008 drafted inside main NorDig T group, reached a more or less acceptable & stable text proposal in May 2020, supported by most inside NorDig/T. A late draft011 Sep2020 alternative draft from Samsung supported by Sony, “minimalistic” draft, seen as non-complete by several other inside NorDig/T, no consensus inside NorDig T but majority for d008. Excom Oct2020 gave AP to NorDig/T to continue work, more background in Annex D, E and F).*
 - dHDR proposal inside draft IRD spec v3.1.2 based upon dHDR draft008 (with only smaller changes for spelling and selecting formulation alternative with same meaning)
 - Voting inside NorDig T Jan2021, absolute majority supported draft008 (only Samsung & Sony in favour for draft011) NorDig T group then selected draft008 (with some smaller changes) as final proposal.
 - NorDig T (majority) view was that the alternative draft011 is not mature and not technical complete (only Samsung & Sony other view)
 - NorDig T asked Samsung & Sony to present a more technical complete draft than draft011 to Jan2021, but they have not presented any updated draft to discuss around.
 - Several IRD manufactures (LG, Panasonic, TP Vision) support d008 and asks Samsung and Branschkansliet to NOT state that their companies are against d008. (They are surprised by Branschkansliet’s (Nordic trading organisation) letter to Excom chair).

Excom: decided that NorDig updates requirements to incl dHDR as proposed in draft.

Summary around Excom comments/discussions around dHDR:

- Nordic trading association “Branschkansliet”, reported to have members/TV manufactures that has strong voices against NorDig proposal for dHDR and some other members that support it, so Branschkansliet do not have consensus internally and will not vote against proposal.



SDR



Static HDR



Dynamic HDR

NorDig IRD specification v3.1.2 – Audio (same as reported to Excom in Oct2020):

- TV manufactures (Samsung and LG) has identified and asked questions around some missing corner cases related to audio stream selection.
 - Audio Prioritisation inside the NGA Audio PID/stream , cases related to PMT APD signalling and inband ac4_toc signaling.
 - (legacy a.codec) Supplementary Audio, if broadcaster/network do not transmit according to DVB/Nordig recommendation (i.e. do not incl suppl_audio_descriptor) and
- NorDig T/Audio has drafted
 - clarification for NGA prio
 - clarification for Supplem. Audio handling if some signaling is missing and
 - (Annex) flowchart guide for Audio prio
- Draft agreed & stable within NorDig T/Audio (ready for next IRD spec release)

NorDig IRD specification v3.1.2 – NorDig update of HbbTV version

- NorDig T/API (majority) propose to update NorDig to require HbbTV v2.0.3 with an 18 months grace period now with the new NorDig IRD+RoO+Test specs v3.1.2 (incl in the drafts), which more or less means start from y2023 IRD products.
- NorDig API has reported interest for using HbbTV v2.0.3 from NRK and SVT
- This is supported by NorDig/T/API broadcast&operator members and LG, TP Vision and Panasonic, however Samsung and Sony are against this. LG, TP Vision and Panasonic said that they will anyway implement v2.0.3 and grace period is more than enough.
- Samsung comments (& Sony) (shorten some, see full comment text from Samsung and Sony in Annex G):
 - requests that changes in NorDig specifications only occur when broadcasters have a commercial justification for them. The current specifications already do not prevent manufacturers from implementing a newer version than 2.0.2 if they wish to (modification -> costs & risks for manufactures). Kindly asking ExCom to clarify the commercial justifications to support the mandate to enforce HbbTV2.0.3 as a minimum, in order to fully endorse the request.

Background info about HbbTV versions and errata

- *HbbTV v2.0.2 errata [Quite some corrections, security patches, debugging]*
- *HbbTV v2.0.3 changes [Includes v2.0.2 errata, removal of unused features, No big new features/"low hanging fruit" updates]*

For more info see <https://www.hbbtv.org/wp-content/uploads/2020/10/HbbTV-SPEC-00521-004-HbbTV-203-Explained.pdf>

Excom: decided that NorDig updates requirements for HbbTV to v2.0.3 with a grace period as proposed in draft, but Nordic trading association (and Sony) reserved to this.

Summary around Excom comments/discussions around HbbTV v2.0.3:

- Nordic trading association “Branschkanslitet” have consensus among its members (TV manufactures incl LG and TP Vision), are sceptical to and against to incl v2.0.3 in NorDig spec. Do not see any need for HbbTV v2.0.3 and asks for broadcasters to present concrete plans.
- NRK: corrects that NRK do not have any plans for HbbTV
- SVT: tests/pilot HbbTV for accessibility. SVT positive of development of HbbTV.
- RTÉ: is interested in HbbTV v2.0.3 and positive for v2.0.3.
- DR using HbbTV since (2012) 2014, today using HbbTV v1.1 + v1.5, will start investigating adding HbbTV v2 and then which subversion of v2.
- Vestel reports that DTG D-book since last Nov2020 includes HbbTV v2.0.3 and Vestel is OK with that NorDig update HbbTV to v2.0.3
- Sony: not against v2.0.3 but needs to be clarified what is needed in the market. Don't want NorDig to mandate v2.0.3 unless NorDig members has concrete plans/needs (missing plans from NorDig members for v2). HbbTV now working on v2.0.4 and v2.0.5 already.
- It has been reported that some TV sets typically support several HbbTV versions and enable a specific HbbTV version depending upon country settings.
- Excom chair then proposed to go for v2.0.3 and asked if any are against, only Branschkanslitet made a reservation.

NorDig EPG group and Event exchange file format:

- *Keep TV Anytime spec up to date*
- *Updated of guidelines*
- *Work to promote / help impl and use of NorDig EPG/event file format*
- **Open workshop 8 April 2021 (webinar)**
 - On demand and TVA – how to promote OD content
 - How to use Google TV, EIDR and other with TVA
 - Working with Images.
- **Last period,**
 - Exchange implementation experience of NorDig TV Anytime
 - Update of Implementation Guidelines package v.1.3.1
 - Released list of EPG/Event metadata in NorDig TVA format v.1.1
 - NorDig TVA Genre list v.1.1
 - NorDig TVA metadata for KANTAR audiens, recommendations ready for release
 - Working on “How related list” for better handling images / pictures
 - Investigate mapping Google metadata / TVA
- **Status of implementation and use of NorDig common EPG/Event metadata exchange format, done or in process: NRK, TV2DK, TV2NO, DR, TDC, Red Bee Media, SimpleTV, SVT and Teracom.**

Excom OK

- DVB video&audio codec
 - Under study new future codecs
- DVB-I
 - DVB published specs Nov2020 (linear television services via Internet & intersection of linear broadcast television and internet media streaming)
 - Italy UHD receiver spec foresees mandatory DVB-I support (under some conditions Italian broadcasters' successful proof-of-concept & trials etc. See more info at <https://dvb.org/news/new-italian-receiver-spec-foresees-mandatory-dvb-i-support/>)
 - Several NorDig Operators has today already their hybrid broadcast & broadband live TV services but with proprietary solution.
- DVB TA (Target Advertising)

NorDig Unified IRD spec future – next version (“v3.1.3”) proposals:

- General
 - FrontEnd
 - Demultiplexing
 - Video
 - Audio
 - Subtitling
 - Interfaces & CA/CP/Security
 - SSU
 - PSI/SI, menus etc...
 - PVR
 - HbbTV
 - User Preferences
- Others?
 - (DVB-I: Excom plan for next Excom meeting to have a presentation of DVB-I hopefully from DVB or some other external expert of DVB-I, no task for NorDig T around DVB-I for now).

Excom view?

- *Q1 from Industry to Broadcasters regarding TTML subtitling (translation/normal and HoH):*
 - *Use of non-burn-in subtitling for their OnLine/Play services (for translation/normal or HoH/CC)?*
 - *Using or planning to use DVB TTML subtitling in broadcast?*
- *Q2 (Samsung) general request to remove unused features and requirements in future NorDig specifications.*
- *AP Per T to remind Excom to next meeting for members to collect info about their subtitling (and TTML)*

NorDig T – PROPOSED mandates & items for period 2021-2022 – **waiting Excom input & approval**

- General:
 - Keep IRD, RoO and Test Plan in line with each other
 - Maintain and keep NorDig spec up to date (debug, reference list to international spec is up to date etc)
 - Monitor DVB, HbbTV and other relevant IRD specs changes and new technologies (e.g. DVB-I)
- NorDig Unified IRD spec
- NorDig RoO specification
 - Review sections that are not fully updated,
 - focus on helping broadcasting avoid issues for IRD/viewers (“tips and tricks”)
 - Additions to DVB
 - minimize and shorten text that are mainly relevant for the IRD
 - Investigate possibility to reference/link to NorDig members’ national/operator additional RoO
- NorDig Test and Test plan
 - Maintain and update NorDig Test plan to match IRD spec
 - Review and where possible combine similar test cases to make it easier and faster to test
 - “minimize” redundant test cases if possible without compromising with test quality, to speed up time for verification testing.
 - Update and improve test cases
- NorDig EPG exchange file format
 - Maintain NorDig spec. of common EPG/Event exchange file format and impl. Guidelines
 - Keep TV Anytime spec. up to date
 - Work to promote NorDig TVA eg. via open Workshops and help impl. and use of NorDig EPG/event file format

Excom: OK as proposed

continue new PROPOSED NorDig T mandates & items for period 2021-2022 – [waiting Excom input & approval](#)

- Video, audio, subtitling
 - monitor DVB specifications and recommendations and I/O (HDMI).
 - **NGA&TTML:** monitor NGA&TTML audio usage and experience (in order to help NorDig member using/launching NGA &/or TTML).
- HbbTV
 - NorDig HbbTV test and test cases; maintain NorDig developed test cases. Propose new test cases if needed.
 - NorDig HbbTV IRD requirements; maintain and update HbbTV requirements. Investigate, present and when confirmed by Excom draft proposal for new HbbTV requirement that are of interest for NorDig members
 - HbbTV implementation: Monitor and report HbbTV implementation in NorDig networks & IRD side, exchange experience
- Accessibility
 - Work with harmonization of broadcast and better describe current broadcast for IRD manufactures
 - HbbTV for Accessibility services – investigate how HbbTV can be used for Accessibility and if needed propose changes to IRD and RoO requirements
 - Investigate benefits with NGA for accessibility
- CA and CI
- DVB-I – [wait for Excom \(note: Excom plan for next Excom meeting to have a presentation of DVB-I hopefully from DVB or some other external expert of DVB-I\)](#)
- EPG/Event exchange file format:
 - Promote use for NorDig members for example via open workshops to support promoting and implementation of NorDig TVA format.
 - Maintain NorDig specification of common EPG/Event exchange file format and Guidelines, to be in line with TA Anytime specs

[Excom: OK as proposed](#)

List of Countries using NorDig specifications (outside NorDig members), Nothing new to report, same as last meeting (same as previous report).

Several IRD manufactures and other mentions that several other territories and DVB networks refers or uses NorDig as basis for their IRD specs (especially “newer” networks). Among reasons seems open spec and content (T2, HbbTV, subtitling etc).

Country / Network	Status
Turkey DTT	Confirmed via Vestel
Several eastern Europe countries	Indications, not confirmed
Malaysia (<i>blue copy</i>)	Digita
German DTT (Media broadcast/TDF)	Based on/reference to NorDig IRD
Georgia DTT	Based on/reference to NorDig IRD (v2.2)
French DTT/FAVN ??	Based on/reference to NorDig IRD v??
Italien DTT + Satellite	Partly based on/reference to NorDig IRD (v2.5, RF), partly own requirements (e.g. SI)
Poland DTT	Might be based on/reference to NorDig IRD

Special topic:

NGA/AC-4 presentation

Two years after NorDig specified NGA/AC-4

Status, experience etc

from NorDig Audio Johan Lindroos (SVT) & Dolby, Anirban Majumdar

Separate presentation (20min)