World Radiocommunication Seminar 2020 (WRS-20)

Terrestrial Services Department

ONLINE TOOLS AND ELECTRONIC COMMUNICATION MEANS
FOR TERRESTRIAL SERVICES

1   Introduction

Over the past several years, the Radiocommunication Bureau (BR) has developed several online tools for terrestrial services, which are complementary to the *TerRaSys* tools (*TerRaNotices* and *TerRaQ*) provided in the BR IFIC (Terrestrial services).

Some fragments of information, such as FXM Plans, 9.21 notices and Common Frequencies, are not yet accessible by the online tools and the Bureau is working on their implementation. In case of discrepancies between the data in the online tools and the BR IFIC on DVD, the BRIFIC on DVD data remain the point of reference.

Those online tools are intended to facilitate the application of the regulatory procedures contained in the Radio Regulations (RR) and regional agreements by providing online access to BR databases and services by means of user-friendly and interactive tools.

eBCD2.0, the online platform for broadcasting services, in production since 2010, provides useful and secure web-based tools for TIES authenticated users: eQry, ePub, eTools and myAdmin.

The BR developed additional tools for all terrestrial services, namely the eMIFR and the Online Validation, and recently consolidated these tools in the **eTerrestrial** portal.

This paper describes the following web applications and electronic communication means for terrestrial services:

–   *WISFAT* – secure web interface for submission of terrestrial notices to the Bureau;

–   *Online Validation (will be renamed to eValidation in 2021)*– web tool for checking completeness and correctness of the notices;

–   *eMIFR* – tool providing online access to the terrestrial part of the Master Register (MIFR);

–   *eBroadcasting (former eBCD2.0)* platform comprising eQry, ePub, eTools and myAdmin – a set of tools for terrestrial broadcasting services enabling to query broadcasting plans, consult Special Sections, follow plan modification procedures and perform calculation on-demand in the scope of selected broadcasting agreements for testing and compatibility analysis purposes and propagation prediction calculations.

2   Detailed description of the Online tools

2.1   WISFAT

The Web Interface for Submission of Frequency Assignments/Allotments for Terrestrial Services (WISFAT) is the secure web interface for the submission to the BR for the frequency assignment/allotment notices for terrestrial services for the update of the Master International Frequency Register (MIFR) and/or for the modification of Plans. It is available at: http://www.itu.int/ITU-R/terrestrial/index.html

Before submitting notices via WISFAT, administrations are strongly recommended to validate their submissions using the Online Validation tool.

2.2   eTerrestrial Portal

The eTerrestrial plataform, available at https://www.itu.int/ITU-R/eTerrestrial, provides secure web-based services to TIES users. The following tools are available.

2.2.1   Online Validation

The Online Validation, in production since 2015, allows for a complete check of all data elements that are to be notified for each class of station in accordance with Appendix **4** to the RR and the different regional agreements and for all terrestrial services.

Multiple notification files can be uploaded for validation within this tool and at the end of the validation process, a complete validation report is available online and a copy is sent to the ITU e-mail.

It is strongly recommended to make use of the online validation to check, and possibly correct, the notification files before submitting them to the BR via WISFAT, in order to optimize the submission process, reducing therefore the workload on both administrations and the BR.

This tool, implemented with a SOA[1] architecture like the one available for eTools and reusing the TerRaNotices validation software (included in the BR IFIC DVD), has been intensively used by administrations.

Access to the online validation tool is available via the ITU website at the following address: https://www.itu.int/ITU-R/terrestrial/OnlineValidation/Login.aspx

2.2.2   eMIFR

The on-line query tool, developed prior to WRC-15, provides online access to the copy of the terrestrial part of the Master International Frequency Register (MIFR) updated on a daily basis. It allows TIES users to consult the frequency assignments to stations of terrestrial services recorded in the MIFR as well as the notices under processing by the BR notified pursuant to Article **11** of the RR. The tool allows a simultaneous retrieval of data from the terrestrial portion of the MIFR (FMTV, LFMF and FXM) and is accessible via the ITU website at the following address: https://www.itu.int/ITU-R/eTerrestrial/eMIFR

2.2.3   eBroadcasting platform (former eBCD2.0) platform

This platform, available at https://www.itu.int/ITU-R/eTerrestrial/eBroadcasting, comprises several applications described below.

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[1] SOA: Service Oriented Architecture

2.2.3.1   eQry

Allows fast online searches on broadcasting plans. It provides the possibility of performing basic queries on a read-only daily copy of the BR database.

2.2.3.2   ePub

Displays the broadcasting publications online, allowing users to consult the Special Sections at publication date. All broadcasting publications since 2007 are available from *ePub* and easily retrievable.

2.2.3.3   eTools

Allows performing calculation on-demand in the scope of GE06, RJ81 and GE84 agreements for testing and compatibility analysis purposes. In addition, it could be used for performing propagation prediction calculations according to the Recommendations ITU-R P.1812 and ITU-R P.1546 (currently available in Beta version). The possibility of running compatibility analyses for MIFR requirements in Central America and Caribbean region has been made available in 2017.

eTools has been widely used for the planning of digital television broadcasting in the scope of the GE06 agreement , in the frequency band 470-694 MHz, within the ATU (African Telecommunications Union) and the ASMG (Arab Spectrum Management Group) countries, which has been carried on since 2012, allowing administrations to perform online compatibility analyses calculations and coordination examination. In 2017-2018 the tool has been widely used in the scope of coordinating digital requirements within the COMTELCA region.

The web portal permits the user to control the calculation job (submit/cancel) and to monitor its status (pending, running, completed). One collaborative feature of the tool allows users to share calculation results with other users from other administrations, therefore streamlining and facilitating the coordination process.

To manage the workload (greatly time-dependent) of calculations on-demand submitted via eTools by the Membership, the BR has developed a local distributed infrastructure, completely decoupled from the web portal, composed by 30 parallel processes.

2.2.3.4   myAdmin

Allows users to check and visualize their administrations notices and recorded frequency assignments/allotments, making it easier to follow the relevant Plan modification procedures and related deadlines.

This tool includes an individual (by Administration) and secure mailbox (***MailBox),*** consisting in an electronic output channel where the BR has been posting for several years individual communications to the relating Member State only. Some examples include the list of GE06 proposed plan modifications under review, GE06D notices to be deleted (in coordination since 2 years and 75 days) and information about Plan modification published in the last Special Section submitted or affecting the given administration.

Starting from October 2016 the access to MyAdmin is restricted to focal point(s) only. The email notification services informing when relevant Special Sections are available on the web (at publication date) and when relevant coordination information enters in the database (available since 2014 to all TIES user subscribers) is also restricted to focal points.

In order to deliver a global service, the BR decided to make available via the already existing output channel Mailbox all the correspondence related to all broadcasting Plans (GE06, GE84, GE75 etc.).

To this purpose, the link between its document management system (Documentum) and the eBCD2.0 platform was created. When the letter is made available in myAdmin, the system will send an automatic email notification to official focal point(s) to inform them about the above-mentioned correspondence stored in their MailBox (signed reminders in pdf format).

In addition, for the letters requiring actions from an administration, like § 4.1.4.10 or § 4.2.4.9 of the GE06 Agreement, the system will send the second email reminder ten days before the expiration of the deadline.

Administrations are invited to use the above-mentioned online tools, which may considerably facilitate the application of the relevant regulatory, technical and administrative procedures.

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