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APT Secretariat

APT FREQUENCY INFORMATION SYSTEM (AFIS)

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What is AFIS?

- **APT Frequency Information System**
- A web-based portal of frequency allocation of the APT Member Administrations
- To illustrate extent of frequency harmonisation within Asia Pacific
- To allow users to quickly search and compare spectrum information for a number of APT administrations



Contents of AFIS:

- | | |
|---------------------|---|
| • Allocations | ITU Radio Regulations terms |
| • Applications | Radio communications systems or equipment types to which the bands have been designated |
| • Radio interfaces | Requirements for the use of radio equipment |
| • Right of use info | In case of spectrum trade, who is using the band |
| • Documents | Any related info |



Background:

- One of the objectives of Spectrum WG of APT Wireless Group (AWG) is to plan for harmonized spectrum usage for Radiocommunication systems
- To fulfill this objective a major task of the Spectrum WG is to develop and maintain an Information System of major Radiocommunication systems in APT member countries



Background: (2)

- The concept of AFIS was developed in 2004 when AWG was created
- In 2005, a survey was conducted by APT Secretariat for evaluating the necessity of creating the Frequency portal
- Many APT Member Administrations showed keen interest to create such portal
- A number of Administrations requested APT to help for making electronic version of their National Table of Frequency Allocation (NTFA)



Background: (3)

- In 2006, APT Recommendation on this issue was developed by AWG and approved by the APT Management Committee.
- This Recommendation recommends APT Secretariat to :
 - construct and maintain a common database system for table of frequency allocation of APT Member countries, subject to the availability of funds;
 - assists APT Member Countries in developing their NTFA in electronic format



Background: 4

- APT Secretariat communicated with ITU, CEPT and CITELE to develop the Frequency Information System
- These organizations offered APT in kind to study the Frequency Information System currently in use
- Spectrum experts in AWF studied those systems and decided that APT Frequency portal will follow the Frequency portal used by CEPT/ERO



Relation with CEPT/ERO

- APT signed MoU with CEPT
- ERO is the responsible organization of CEPT dealing with Radiocommunication matters
- A number of frequency experts were involved in the AWG works on AFIS
- APT secretariat officials and AWF experts visited ERO and Swiss OFCOM to study the matter and technical details
- APT has signed agreement last week with ERO to use the European Frequency Information System software for AFIS free of cost.



The EFIS & SWEFT:

- 1997 ERC Decision **ERC/DEC/(97)01** on the publication of national tables of frequency allocations
- 2000 A new concept is invented: 'ERO Frequency Database'
- 2001 The 'FDG' (Frequency Database Group) is established
 - *with participation of administrations and industry*
 - An agreement is reached to produce a standard list of terms, *which leads to:*
- 2001 Establishment of ECC TG2
- 2001 ECC Decision **ECC/DEC(01)03** on EFIS
and the EFIS system is designed, developed and put on line
- 2002 Establishment of the 'EFIS MG' (maintenance group)
 - *All 48 CEPT administrations are on the mailing list for MG issues*
 - *The group meets 2-3 times a year to review tables and discuss updates and further development and improvements of EFIS*
- 2007 The Commission of the European Union decides that EFIS will be the 'European Common Spectrum Information Portal', and **member states are obliged to publish their frequency information in EFIS**

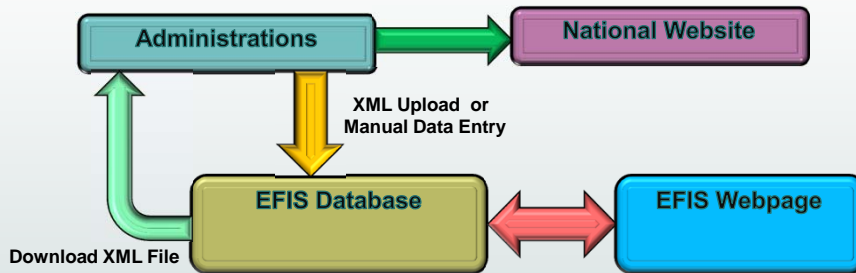


The EFIS & SWEFT:

- Allocations ITU Radio Regulations terms
- Applications Radio communications systems or equipment types to which the bands have been designated
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- Documents Any related info



The EFIS & SWEFT:





The EFIS & SWEFT:

- Administrations have **full** control of national data
- There are different ways of uploading and maintaining the data submitted to EFIS:
 - manual insertion/update
 - downloading a data file and modifying the file acc to national reqs
 - using a software utility to extract data from a national database
 - database maintenance tool with fully integrated EFIS-XML support and a GUI for easy incorporation of changes



The EFIS & SWEFT:

- The Swiss administration decided, on a national basis, to develop a database tool (NaFZ) for frequency management
 - This tool was designed to include 'automatic' data transfer to EFIS
 - Investment in development of the tool:
 - Production of NaFZ: approx 62,000 € + 12 man-months for data input
93,000 US\$
 - Extension to EFIS: approx 9,000 € + 4 man-months for data input
14,000 US\$
 - Extension to RIR: approx 22,000 € + 3 man-months for data input
32,000 US\$
- | | |
|----------|--|
| Σ | 93'000 € + 17 man-months for data input |
| | 139,000 US\$ |



The EFIS & SWEFT:

- The Swiss tool offers an all-in-one solution
- Therefore, ERO felt that it could be useful to many administrations and could be recommended to those
 - acquiring a new system or
 - upgrading a major part of an existing system
- The Swiss administration offered their tool to CEPT administrations on the condition that ERO assumed responsibility for distribution and maintenance
- **SWEFT** was born!
- ERO
 - offers the software tool to any administration interested in using it for national database maintenance and/or upload to EFIS
 - provides assistance with installation of the software and connection to an existing or new database
 - supplies new versions of the tool following software upgrades



APT's Approach

- APT is receiving the EFIS and SWEFT software from ERO free of charge based on agreement between two organizations
- EFIS → AFIS and SWEFT → APT-AT
- Both the tools have been simplified in context of APT so that it does not incur extra cost to APT and APT Administrations from technical side



APT's Approach

- Two Steps Approach
- In 1st step APT will:
 - Encourage APT Administrations to develop the **Complete Electronic version of the NFTA using SWEFT**. SWEFT can be used as a complete tool for Frequency Management in national level
 - SWEFT will be given free of charge to interested administrations
 - Setup and training would be provided by APT



APT's Approach

- In 2nd Step APT will:
 - Collect the xml data set as provided by Administration
 - Make it available in AFIS which will be available as web portal
- Administration would have full control of their national data in SWEFT and AFIS system
- Administration can hide confidential information from xml files before sending to AFIS
- SWEFT will not publish any confidential information



APT's Approach

- AWG Meetings developed
 - Guideline on AFIS which described the classification of the Radiocommunication Services and Applications
 - Work Plan for Implementation for AFIS
- APT encourages other Administrations to participate and publish NTFA in AFIS



Expectation from SATRC

- SATRC is a strong sub regional forum in APT lead by the head of Telecom Regulators
- Cooperation and coordination among Member Administrations are well appreciated
- SATRC is expected to take coordinated action for the work of AFIS
- SATRC WG on Spectrum Issues may nominate SATRC experts who can be included in AFIS MG and represent the views of SATRC

Thank you!

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