

Federal Communications Commission

Electronic Batch Filing (EBF)

EBF Filing of ULS Applications



October 2020

Document Revision History

Record of Change			
Change No.	Reference	Date of Prior Document Version	Effective Date of Change
0	Document created	-	-
1	New response file record format, updated links and references	August 8, 2013	September 16, 2013
2	Updates for Renewal Reform Requirements	September 16, 2013	October 01, 2020

Overview

ULS Electronic Batch Filing (EBF) is a process whereby an organization extracts data out of its database and formats batch applications that can be processed by ULS. This process ensures that the data in ULS and the data in the organization's database match and eliminates needless rekeying of applications. The process is straightforward. The organization will use https via the Internet to place batch files on an FCC webserver. ULS will pick up the files from that server and process the applications within each file. ULS will, in turn, place a response file out on the same webserver with information about each application that was in the inbound file. The response file will contain one or more data records per application from the inbound file. If an application's data is incomplete or incorrect, the response file will return one or more error codes indicating what was wrong. If the application passes all validation checks, the application will be entered into ULS, assigned a ULS file number, and a fee will be determined, if appropriate. This information will be placed in the response file.

Each organization that files via electronic batch will be assigned a separate area on the FCC webserver. Only the assigned organization can access their area and their files. An organization can file as many application files as it wishes per day. The only requirement is that each file is uniquely named so one file does not overlay another. Each response file will have the same name as the inbound file but with a different extension. As inbound files are picked up by ULS for processing, they will be removed from the webserver once they have been successfully processed.

Before being allowed to file applications in production, each organization that wishes to file via batch will need to undergo a test phase until the ULS staff is certain that application file formats are correct.

All application purposes can be filed via EBF with the exception of Assignments of Authorization that involve partitioning or disaggregation of market-based licenses or partial assignment of site-based licenses. These applications must be filed online.

Documentation

The documentation needed in order to implement electronic batch filing:

EBF Filing of ULS Applications (this document) - provides general information

ebf_ddef32.pdf - contains the layout of every record type, the content of each data field and a Form Reference column.

errcodes.txt - contains a list of all possible error codes that may be returned in the response file

FCC Forms 601, 603, and 605 - explain what data is required depending on the radio service and the application purpose. Forms can be obtained here: <http://www.fcc.gov/forms>

ULS code definitions for various data fields

All of these documents are available on the Internet by going to the ULS home page and choosing "Batch Filing" on the left side of the page.

Getting Started

If your organization wants to file applications via batch, the first step is to contact ULS through eSupport, <http://esupport.fcc.gov/request.htm>. Technical Support will take your organization's name, address, phone number, fax number, email address, and point of contact. You will also be asked to indicate which radio services you will be filing EBF applications. You will be given a point of contact to work with during the testing phase. A ULS login and the address of the https server will be provided upon successful completion of the testing phase. This login ID will be used for filing live applications in production.

Application File Format

The application file is an ASCII file (DOS or Windows text file) containing multiple data records of variable length. Each record contains data fields, which vary according to the record type. The fields within the record are pipe-delimited, i.e., there is a "|" separating each data field in the record from the data field next to it. The last data field of the record is not followed by a "|". The length of each record depends upon the actual contents of the data fields in that record. The first field of each record contains a unique two-character code indicating the record type (see the next section for further details.) A single file can contain one or more applications.

Application File Content

There are a number of different record formats associated with each application. Every application must begin with a "Header" record (record type "HD"). This record corresponds to the application's administrative data that is also present in a license. The second record of an application must always be an "Application Detail" record (record type "AD"). This record contains data that is application-specific such as the purpose of the application and whether or not the applicant is fee exempt. The third record is the "Entity" record (record type "EN"). This record identifies the applicant, also known as the licensee. If the licensee TIN is provided and the licensee is not registered with ULS, the licensee will be registered automatically as part of the registration process. The licensee's ULS Licensee ID will be returned in the response file.

Only these three records are typically required for many of the simple application purposes such as renew only, administrative update, request of a duplicate authorization, withdrawal of a pending application, and cancellation of an existing license. The AT record may also be required if an attachment is now required. For new applications, modifications, and renewal/modifications, additional record types are needed to provide detailed technical information, either site-based, market-based or service-based as appropriate.

Data Records

The actual data record formats are contained in a separate document, ebf_ddef32.pdf. This document shows all the record types, the data fields and definitions. It also includes the data contents and a Form Reference column.

In addition to the document for the record formats, you will also need to refer to the instructions that are part of the Forms 601, 603 and 605 and their respective schedules. These instructions will indicate which data is required depending on the radio service and application purpose.

To indicate that you would like to delete the contents of a data field, place a dollar sign (\$) in the appropriate position. The following is the list of data fields where \$ is valid:

AD10 - Requested Expiration Date	HD36 - Male or Female
EN8 - Entity Name	HD37 - Black or African American
EN9 - First Name	HD38 - Native American
EN10 - MI	HD39 - Hawaiian
EN11 - Last Name	HD40 - Asian
EN12 - Suffix	HD41 - White
EN14 - Fax	HD42 - Ethnicity
EN15 - Email	HD46 - Broadcast Services - Regulatory Status
EN16 - Street Address	HD47 - Band Manager - Regulatory Status
EN20 - PO Box	HD49 - Alien Ruling
EN21 - Attention Line	LO14 - Location County
HD22 - Common Carrier	LO37 - Quiet Zone Notification Date
HD23 - Non Common Carrier	
HD24 - Private Comm	

All other fields are either required technical data or “yes/no” answers where a “no” can reverse a previous “yes” and vice versa.

The data record types used for electronic batch filing:

Header Record (HD) contains data primarily from the Main Form 601, 603 or 605 that applies to the license at a general level such as call sign, radio service code, etc.

Application Detail (AD) contains data primarily from the Main Form 601 or 605 that is application specific.

Entity Record (EN) contains name, address, phone, fax and email information for the licensee, licensee’s contact, assignor, assignor contact, assignee, assignee contact, transferor, transferor’s contact, transferee, transferee’s contact, or real party of interest. The entities’ ULS Licensee ID or TIN/SGIN combination is required for all entity types except the contact.

Personal Security (PS) is used to provide the personal security and question information that is provided by the applicant during the registration process.

Transfer Assign (TA) contains Form 603 main form transfer/assignment data.

Call Sign (CF) is used to provide one or more call signs for transfers of control, assignment of authorizations, notification of consummation or build-out, or requests for extension.

Microwave (MW) contains Form 601 Schedule I general Microwave information.

Land Mobile Administration (LM) contains Form 601 Schedule H general Land Mobile information.

Coast and Ground (CG) contains Form 601 Schedule G general Coast & Ground information.

Aircraft (AC) contains data from Form 605 schedule C.

Control Point (CP) contains control point address, county, and phone number.

Unserved Area (UA) contains unserved markets being requested in Cellular applications.

Frequency Coordination (FC) contains the name of the frequency coordinator and coordination number.

SIDS (SI) contains Cellular SIDS number.

Broadcast Call Sign (BC) contains broadcast call sign information.

Associated Call Sign (AS) contains an associated call sign.

Location (LO) contains location data to be added, modified, or deleted. Locations are identified by location number.

Area of Operation (OP) is used to describe the area of operation in words if the corresponding LO record indicates that the area of operation is “other.”

Antenna (AN) contains antenna data to be added, modified or deleted. Antennas are identified by antenna number and location number.

Receive Zone (RZ) contains the receive zone data for the Coast & Ground radio services.

Frequency (FR) contains frequency data to be added, modified, or deleted. Frequencies are identified as belonging to a specific location and antenna.

Frequency Type (FT) contains the frequency type data for the Aviation Ground radio services.

Emission (EM) contains emission data to be added, modified, or deleted. Emissions are identified as belonging to a frequency at a specific location and antenna.

Radial (RA) contains radial data to be added, modified, or deleted. Radials are identified as belonging to a frequency at a specific location and antenna.

Points of Com (PC) contains points of com data to be added, modified, or deleted. Emissions are identified as belonging to a frequency at a specific location and antenna.

Path (PA) contains Microwave path data, specifically the transmitting antenna and the receiving antenna, to be added, modified, or deleted.

Market (MK) identifies a market.

Tribal Land (TL) contains Tribal Lands Information data which corresponds to Form 601 Schedule B for Geographically Licensed Services.

Attachment (AT) is used to indicate an attachment accompanies the application. It contains the name of the attachment file that has been sent with the batch file.

Data records are hierarchical and must be filed in a specific order depending on the application purpose and radio service. The first three records must always be HD first, AD second, and EN third. As indicated above, you need to utilize the form instructions to help you complete each record type. For any given record that is included in an application, it is very likely that a large number of the positions will not contain data, (i.e., will be null), which is represented by two consecutive pipes (||). This is because each service's data requirements differ in some ways. So, although Paging, Cellular, and Microwave are all site-based, they do not all require the exact same technical data.

After the HD, AD and EN records, only include those record types that are needed to provide the necessary data. For example, suppose an application is being filed to modify the latitude seconds and elevation on an existing location 3 for a paging license with a call sign of XYZ100. The application would look like the following. Please note that the HD record would all be one row in the data file but is wrapped due to document width.

```
HD|||000124EBF00001|XYZ100|CD|||||N|N|N|N|N|N|N|N|N|N|Y|Y|N|N|N|N|N|John|L|Smith|Sr|Vice
President|||||
AD|||000124EBF00001|MD||N|N|||||N|N|N|N|||||
EN|||000124EBF00001|L|L00037482|||||
PS|||000124EBF00001|1|What is your favorite color|Blue
LO|||000124EBF00001|M|F|3|||||128||12.3|||||
```

How EBF Handles Packs

The MW record in EBF is used to provide a pack number, a pack name as well as type of operation, SMSA code, station class, and a flag indicating that the cumulative effect is major. This is the same data that is on the Administrative tab of the data entry applet. An MW record is required for NE, MD, RM or an AM to NE, MD or RM microwave applications.

Auto-registering Packs

If a batch application has a pack number on the MW record, ULS will look in the pack registration table to see if the pack number is registered. If registered, ULS will compare its TIN/SGIN to that of the application being processed. If the pack number is registered to a different TIN/SGIN, error message 9805, "Pack registration has wrong TIN/SGIN", will be

returned and EBF will go on to process the next application in the batch file. If the pack number is not registered, the MW record will have a pack name but no pack number. ULS will automatically register the pack using the TIN/SGIN of the application and the pack name from the MW record.

Submitting Packs

When ULS has finished processing each application in the batch data file, it will look to see if any of the applications belong to packs. If they do, ULS will execute the same code that is executed when a pack is submitted interactively. ULS will return a file number and fees (if appropriate) for each application in the pack. This information will be included in the EBF response file.

Use of Pack Names versus Pack Numbers

If an MW record contains a pack name but not a pack number, ULS will assume that it is a new pack name to be registered. All of the applications belonging to the pack in the same batch file should contain the same exact pack name. When EBF reaches the end of the file, ULS will submit the newly registered pack number. Should any of the applications belonging to that pack need to be re-filed, the newly registered pack number must be used in subsequent batch files. Pack numbers are returned in the response file as an RP record.

What If One or More Applications in a Pack Have Errors?

EBF will handle this similarly to the way that this problem is handled manually. EBF will submit the pack as long as any of the applications in the pack are valid. Errors for the applications with problems will be returned to batch filer. The batch filer can correct the application and re-file it the next time adding it to the pack. Assuming the application is valid, it will be copied to the ULS database and the pack will be submitted again.

Applications By Purpose and Radio Service

Certain application purposes look similar for most radio services. These purposes are renew only (RO), cancel (CA), duplicate (DU), administrative update (AU) and withdrawal (WD). The only record types that are used for these purposes are HD, AD, EN, PS, and AT as required.

The following table provides the valid options for the Operation/Performance Requirement Certification question, Main Form 601 Question 57, (HD51), when required, for the following purposes: Renewal Only (RO), Renewal/Modification (RM).

Option	Description
A	For a site-based license
B	For a geographic license, commercial service – licensee in its initial license term with an interim performance requirement
C	For a geographic license, commercial service – licensee in its initial license term with no interim performance requirement
D	For a geographic license, commercial service – licensee in any subsequent term
E	For a geographic license, private systems – licensee in its initial license term with an interim performance requirement
F	For a geographic license, private systems – licensee in its initial license term with no interim performance requirement
G	For a geographic license, private systems – licensee in any subsequent term
H	For partitioned or disaggregated license without a performance requirement, for the first renewal application filed after 05/30/2020
I	For a partitioned or disaggregated license without a performance requirement, for any subsequent renewal filings

The following table indicates the hierarchy of data record types that are applicable for the following application types (by radio service): New (NE), Modification (MD), Renewal/Modification (RM), or Amendment (AM) to NE, MD or RM.

Record Type	Cod e	Micro -wave	Paging	Cellular	Land Mobile	Coast & Ground	Market- Based	Air- craft
Header	HD	X	X	X	X	X	X	X
Application Detail	AD	X	X	X	X	X	X	X
Entity	EN	X	X	X	X	X	X	X
Personal Security	PS	X	X	X	X	X	X	X
Control Point	CP	X	X	X	X	X		
Location	LO	X	X	X	X	X		
Area of Operation Text	OP	X	X	X	X	X		
Antenna	AN	X	X	X	X	X		
Receive Zone	RZ					X		
Frequency	FR	X	X	X	X	X		
Frequency Type	FT					X		
Emission	EM	X	X		X	X		
Radial	RA		X	X				
Points of Comm	PC		X					
Path	PA	X						
Cellular Unserved Area	UA			X				
SIDS	SI			X				
Microwave	MW	X						
Land Mobile Admin	LM				X			
Coast & Ground	CG					X		
Market	MK	X		X			X	
Tribal Land	TL						X	
Broadcast Call Sign	BC	X			X			
Assoc. Call Sign	AS				X			
Frequency Coordination	FC	X						
Aircraft	AC							X
Attachment	AT	X	X	X	X	X	X	X

The following table indicates which data records are applicable for application purposes of Assignment of Authorization (AA), Transfer of Control (TC), Notification (NT), and Extension of Time Request (EX).

Record Type	Code	NT	EX	AA	TC
Header	HD	X	X	X	X
Application Detail	AD	X	X	X	X
Entity	EN	X	X	X	X
Personal Security	PS	X	X	X	X
Transfer/Assign	TA			X	X
Call Sign/File Number	CF	X	X	X	X
Market	MK			X	
Attachment	AT		X	X	X

Sample applications are available in the separate text files available on the ULS home page.

Response File

Just like the application file, the response file is an ASCII file (DOS or Windows text file) with records of variable length. The response file consists of two record types. Each record contains data fields, which vary according to the record type. The contents of each record type are pipe-delimited, i.e., a "|" separates each data field in the record from the data field next to it. Each record type starts with a unique two-character record type code. The length of each record is dependent upon the actual data contents of the fields in that record. The last data field of the record is not followed by a "|". A single file can contain responses to one or more applications.

There are three different record types that a response file can contain.

RP - to indicate the pack registration number assigned to a new pack.

RE - to indicate an error

RF - to indicate the ULS assigned file number and fee due if any

Response File Records

If an application contains errors and is not accepted for filing, ULS will return at least one "RE" record type. An "RF" record will not be produced. The file will contain as many RE records as necessary to provide all the appropriate errors for a particular application.

The standard “RE” record format is as follows:

Position	Data Element	Definition	Content
1	Record Type	Char(2)	“RE”
2	EBF File Number	Varchar(30)	The EBF file number of the application
3	Location Number	Integer	The location number in error if applicable else null
4	Antenna Number	Integer	The antenna number in error if applicable else null
5	Frequency Assigned	Numeric(16,8)	The frequency in error if applicable else null
6	Emission Code	Char(7)	The emission code in error if applicable else null
7	Radial Direction	numeric(3,0)	Radial direction in error if applicable else null
8	Path Number	Integer	The path number in error if applicable else null
9	Error Code	Integer	The error code indicating what is wrong; a zero indicates no errors and the application is accepted for filing

The list of error codes and their meanings are contained in the errcodes.txt file. This file can be obtained from the ULS home page on the web.

Example: The batch application with an EBF file number of “XFT0010024001” is accepted for filing, i.e., all the required data is present and correct. No “RE” record would be produced.

The batch application with an EBF file number of “XFT0010024002” is rejected because the frequency 66645.23 at location 4 antenna 1 is invalid for the particular radio service. The “RE” record would look as follows:

RE| XFT0010024002|4|1|66645.23|||5320

In some cases, the user may receive a unique “RE” response file. Below is an example of a unique “RE” record format:

Position	Data Element	Definition	Content
1	Record Type	Char(2)	“RE”
2	EBF File Number	Varchar(30)	The EBF file number of the application
3	Location Number	Integer	The location number in error if applicable else null
4	Antenna Number	Integer	The antenna number in error if applicable else null
5	Frequency Assigned	Numeric(16,8)	The frequency in error if applicable else null
6	Emission Number	Integer	The emission number in error if applicable else null
7	Emission Code	Char(7)	The emission code in error if applicable else null
8	Radial Direction	numeric(3,0)	Radial direction in error if applicable else null
9	Path Number	Integer	The path number in error if applicable else null
10	Error Code	Integer	The error code indicating what is wrong; a zero indicates no errors and the application is accepted for filing

Example: The batch application with an EBF file number of “XFT0010024003” is rejected because the user was attempting to delete or modify an emission record for a sequence id that is not currently on the license. If the license has 6 emissions (emission sequence ids 1-6) and the user was attempting to delete or modify emission sequence id 7.

Then, the “RE” record would look as follows:

RE|11223344| 5|1|153.47000000|7|20K0F3E||655528

If an application has no errors and is accepted for filing, ULS will return at least one “RF” record type. An “RE” record will not be produced. The file will contain as many RF records as necessary to provide the fee due information.

An “RF” record will contain the file number assigned by ULS and any fees that may be required.

The “RF” record format is as follows:

Position	Data Element	Definition	Content
1	Record Type	Char(2)	“RF”
2	EBF File Number	Varchar(30)	The EBF file number of the application
3	ULS File Number	Char(14)	File number assigned by ULS
4	ULS Licensee ID	Char(9)	Licensee ID
5	Payment Type Code	Char(4)	Three or four character code defined in the WTB Fee Filing Guide
6	Fee Multiplier	integer	Used to determine the fee amount due
7	Fee Amount Due	integer	The product of multiplying the dollar amount of the payment type code types the fee multiplier

Example: The batch application with an EBF file number of “XFT0010024003” is accepted for filing, i.e., all the required data is present and correct and requires no fee. The response file would contain the following record:

RF| XFT0010024003|0000073921|L00003482|||

On the other hand, the batch application with an EBF file number of “XFT0010024003” did require both an application fee and a fee for a waiver and the applicant is not fee exempt. The response file would look like:

RF| XFT0010024003|0000073921|L00003482|CJPM|1|210

RF| XFT0010024003|0000073921|L00003482|PDWM|1|145

The information on the RF record is required as remittance information when the fee is paid, regardless of whether that payment is electronic or a check or credit card mailed to Mellon Bank.

If remitting a check to Mellon Bank with an accompanying Form 159 or completing CIP remittance information, the ULS file number must be included as the “FCC Code 2” content for each detail row.

For each application belonging to a pack that is registered by EBF, EBF will return an RP record indicating the pack registration number assigned by ULS.

Position	Data Element	Definition	Content
1	Record Type	Char(2)	“RP”
2	EBF File Number	Varchar(30)	The EBF file number of the application
3	Pack Name	varchar(50)	The name of the pack if applicable
4	Pack Number	Integer	The registered number of the pack if applicable

Example: A batch file is received that contains 3 applications that are all part of a new pack named "Maryland Pack." Each of these applications would contain an MW record with the same pack name. The first application is missing a required attachment and the next two applications process successfully. Each of the applications will start with an RP record to indicate it belongs to a pack and provide the newly registered pack number. Since application 000426001 had a problem, it will need to be re-filed. When it is re-filed, the MW record must contain the pack registration number of 1016.

```
RP|000426001|Maryland Pack|1016
RE|000426001|||||4790
RP|000426002|Maryland Pack |1016
RF|000426002|0000114282|L00130187|CJPR|1|340.00
RP|000426003| Maryland Pack|1016
RF|000426003|0000114282|L00130187|CJPR|1|340.00
```

Sample Applications

The following is a sample data file containing five (5) different application purposes for microwave services.

```
HD|||MW000CF001|||CF|||C|N|N|N|N|N|N|N|N|N|N|Y|Y|Y|N|N|N|N|Robert|L|Smith|Sr|President|
AD|||MW000CF001|NE||N|N|N|N|N|N|N|N|N|N|Y|1|N|N|N|Y|
EN|||MW000CF001|CL||MW Law LLC|||2024184563|2024187799||2100 M Street|Washington|DC|20004||
EN|||MW000CF001|O|L00065142|
MW|||MW000CF001|N|F|FX0|N
EN|||MW000CF001|L|456789122|EBF Inc.|||2027287100|2027287722||1720 K Street|Washington |DC|20006||
000|| PS|||MW000CF001|2||Arlington
CP|||MW000CF001|A|1|800 North Ave|New York|NY|2125554646|Queens
LO|||MW000CF001|A|F|T|1||601 Cleveland St|Clearwater|Pinellas|FL|||10.7|27|57|54.9|
N|82|47|54.3|W|N|36.6|38.8|B||Tamp003||
LO|||MW000CF001|A|F|R|2|||9.1|27|57|57.9|N|82|47|54.3|W|||Tam0014024||
LO|||MW000CF001|A|F|R|3|||22.6|27|57|40|N|82|46|33.3|W|||Tam0013938||
LO|||MW000CF001|A|F|R|4|||11.3|27|57|57.9|N|82|47|27.9|W|||Tam0013861||
AN|||MW000CF001|A|1|1|T|38.1|Radio Waves Inc|HPLP1.5-23|3.8|V|2.1|37.8|0|||1|1|
AN|||MW000CF001|A|1|2|R|51.5|Radio Waves Inc|HPLP1.5-23||37.8|||2||1|
AN|||MW000CF001|A|2|1|T|38.1|Radio Waves Inc|HPLP1.5-23|0|V|2.1|37.8|101.7|||1||2|
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