

High-Cost Universal Broadband (HUBB) Fabric Data Formatting Instructions



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Preparing Your Data Upload

USAC Template(s)

The USAC templates outline all required fields and formatting based on the Data Specification Guide. You can download the templates for Fabric New Locations (Fabric CSV Template), Fabric Bulk Deletion (Fabric Bulk Deletion Template), and Fabric Bulk Modification (Fabric Bulk Modification Template) from the HUBB, located on the Manage Uploads page.

Please ensure the following:

Use the most recent versions of the templates available in the HUBB. Submissions using outdated templates will fail.

Keep the file name under 50 characters, or the upload will be rejected.

Always refer to the Data Specification Guide to ensure proper formatting and submission.

Required File Format

Users must upload location data to the HUBB as a plain-text, comma-separated values (CSV) file.

To convert a Microsoft Excel (.xlsx) file to CSV format in Excel:
Go to File > Save As, choose CSV (Comma delimited) as the file type, and click Save.

Template Header Row

Make sure the first row of your CSV file contains the exact column headers from the official template. If the headers don't match exactly, the upload will fail. If that happens, correct the headers and reupload the file.



Technology and Latency

Carriers are required to provide the Technology and Latency information for all their locations. If carriers need to update the Technology information, they must use either the Bulk Modification Template or the Single Line Edit option.

Data Specification – Fabric New Locations

Below is a guide outlining the required fields for uploading location data, along with instructions on how to properly format that data. To determine which locations are considered "qualifying" and must be reported for a specific reporting period, please consult FCC guidance and the applicable orders.

Field *	Description	Entry Type	Max Length	Example
Study Area Code *	Study Area Code (SAC) is a 6-digit number used to identify the area	Integer	6	579999
Fabric Location ID *	Fabric Location ID is a unique number that identifies a Location to which broadband is needed or already available. Fabric Location ID is valid exact 10-digit number	Integer	10	1414010449
Date of Deployment *	Date of deployment is when service is available. Location can receive service within 10 business days of a service request. While year must be 4 digits, you can enter single digit month eg 01/01 or 1/1 = January 1	Date	10	03/20/2024 or 3/20/2024



Field *		Descriptio	n	Entry Type	Max Length	Example
Download/Upload Speed Tier *	Speed/bandwidth threshold of the internet access service deployed to this location. Enter a speed Tier ID from the table below. The bandwidth offered at this location should meet or exceed the bandwidth indicated by the speed tier ID and the carrier's deployment and/or reporting obligations			Integer	1	3
	Speed Tier	Download	upload			
	1	1 Mbps	256 kbps			
	2	4 Mbps	1 Mbps			
	3	10 Mbps	1 Mbps			
	4	25 Mbps	3 Mbps			
	5	25 Mbps	5 Mbps			
	6	50 Mbps	5 Mbps			
	7	100 Mbps	20 Mbps			
	8	100 Mbps	25 Mbps			
	9	1 Gbps	500 Mbps			
	10	1 Gbps	1 Gbps			
Carrier Location ID	The carrier Location ID field is available for carriers to add their internal ID associated with a location. If you do not have an ID available, this field can be left blank			Text	50	1234566
Technology ID * EACAM Fund	The Carrier can provide Technology used for all locations using id associated with each Technology type			Text	2	10



	10 40 50 60 61 70 71 72	Technology Type Used Copper Wire Coaxial Cable/HFC Optical Carrier/Fiber to the Premises Geostationary Satellite Non-Geostationary Satellite Unlicensed Terrestrial Fixed Wireless Licensed Terrestrial Fixed Wireless Licensed by Rule Terrestrial Fixed Wireless Other			
Technology ID * Funds RDOF, USVI Fixed & PR Fixed	used	Carrier can provide Technology for all locations using id ciated with each Technology Technology Type Used DSL Cable Fiber Wireless Low Earth Orbit Satellite Geostationary Satellite Other Technology (with option to provide text to define other if carrier chooses to enter a description)	Text	1	2



Field *	Desc	Entry Type	Max Length	Example	
Other Technology	The "Other Tec mandatory whe entered "Other"	Text	1000	provide any additional information regarding Technology used	
Latency *	Latency in broad delay between request and reco over an internet of	Text	1	2	
	ID Latency 1 High 2 Low				
Reason Code *	Enter Reason Cod				
	Reason Code Description 1 Location Served				

Data Specification – Fabric Bulk Deletions

Below is a guide to the required fields for uploading Bulk Deletion files, along with instructions on proper data formatting. Include only the records you wish to delete from the HUBB, and ensure that each record contains a valid Reason Code ID.

Note: Any user with HUBB access can upload the Bulk Deletion Template; however, only the Certifying Officer can complete the deletion of locations. Using outdated templates will result in upload failures.



You may use both Single-Line Deletion and Bulk Deletion uploads to remove locations during the current filing year. Once the filing year closes, only Bulk Deletion uploads can be used, as the Single-Line Deletion functionality is not available for closed filing years.

Field *	Description	on	Entry Type	Max Length	Example
HUBB Location ID*	number ass location su your HUBB	ation ID is a system generated signed by the HUBB for each bmitted. When you download locations for review, this Il be included for each	Integer	50	12345
Reason Code *	record. Ent	Code No Longer Served – Filing Frror No Longer Served – Network Provisioning Change		1	8
Reason Explanation		planation is required when le is entered "Other"- 9	Text	1000	Location doesn't exist

Data Specification – Fabric Bulk Modifications

Below is a guide to the required fields for uploading Bulk Modification files, along with instructions on how to properly format the data. Include only the records you wish to modify in the HUBB within the file.

Available for Public Use



Note: Any user with HUBB access can upload the Bulk Modification Template; however, only the Certifying Officer can certify the modifications to complete the edits. Be sure to download and use the most recent templates for all funding programs—these are available in the HUBB under the Manage Uploads page.

You may use both Single-Line Modification and Bulk Modification uploads to edit locations during the current filing year. After the filing year closes, only Bulk Modification uploads can be used, as Single-Line editing is no longer available for closed filing years.

Field *	Description			Entry Type	Max Length	Example
HUBB Location ID*	HUBB Location ID is a system generated number assigned by the HUBB for each location submitted. When you download your HUBB locations for review, this number will be included for each location			Integer	50	12345
Study Area Code *	Study Area Code (SAC) is a 6-digit number used to identify the area			Integer	6	579999
Fabric Location ID	Fabric Location ID is a unique number that identifies a Location to which broadband is needed or already available.			Integer	10	1414010449
	Fabric Location ID is valid exact 10-digit number					
Date of Deployment	Date of deployment is when service is available. Location can receive service with in 10 business days of a service request. While year must be 4 digits, you can enter single digit month eg 01/01 or 1/1 = January 1 Speed			Date	10	03/20/2024 or 3/20/2024
	Tier	Download	upload			
	2	1 Mbps 4 Mbps	256 kbps 1 Mbps			



		3	10 Mbps	1 Mbps			
		4	25 Mbps	3 Mbps			
		5	25 Mbps	5 Mbps			
		6	50 Mbps	5 Mbps			
		7	100 Mbps	20 Mbps			
		8	100 Mbps	25 Mbps			
		9	1 Gbps	500 Mbps			
		10	1 Gbps	1 Gbps			
		10	1 0003	1 0005			
Carrier Location ID			r Location ID fi				1004500
			or carriers to a associated wi		Text	50	1234566
			f you do not ha				
	1		this field can b				
		,					
Taskarda malb	The C						
Technology ID			r can provide T l locations usir				
EACAM Fund			l with each Te				
LACAM Fulld	type	iatet	i with eath ret	chilotogy			
	Сурс	туре			Text	2	10
	ID	Tec	chnology Type	e Used			
	10	Cor	oper Wire				
	40	_	axial Cable/HF	С			
	50	-	tical Carrier/Fi				
		Pre	emises				
	60	Ged	ostationary Sa	tellite			
	61		n-Geostationa				
	70	Unlicensed Terrestrial Fixed Wireless					
	71		ensed Terrestr eless	ial Fixed			
	72		ensed by Rule ed Wireless	Terrestrial			
	0	Oth					
		•					



Field *	Description			Entry Type	Max Length	Example
Technology ID Funds RDOF, USVI Fixed & PR Fixed	The Carrier can provide Technology used for all locations using id associated with each Technology type.			Text	1	2
	ID	Technology Type Used	I			
	1	DSL				
	2	Cable				
	3	Fiber				
	4	Wireless				
	5	Low Earth Orbit Satelli	te			
	6	Geostationary Satellite	9			
	7	Other Technology (wit option to provide text define other if carrier chooses to enter a description)				
Other Technology	The "Other Technology" field is mandatory when Technology is entered "Other"			Text	1000	provide any additional
Latency	Latency in broadband refers to the delay between sending a data request and receiving a response over an internet connection			Text	1	2
	ID	Latency				
	1	High				
	2	Low				
Reason Code	Enter Reason Code					



	Reason Code	Description	
	1	Location Served	
Reason	For Future Purpose		
Explanation			

Explanation of Tool Tips and Issue Codes

After uploading your data, the HUBB system will automatically identify any errors and/or warnings. Below is a guide to the system's shorthand codes, along with information on which system component checks for each error or warning.

Note: Locations flagged with warnings only (no errors) can still be submitted and saved in the HUBB.

The File Type column indicates which type(s) of file a particular issue code applies to. File types include New Locations, Bulk Deletion, Bulk Modification, and All.

Field *	Validation Type	Issue Message
All	File Format	Uploaded file has too few columns in the header. Please reference the USAC-provided template.
All	File Format	The Uploaded file has too many columns in the header. Please reference the USAC-provided template.
All	Wrong Template	The uploaded file does not match the required template. Please refer to the USAC-provided template and upload the file again.
All	File Name	Filename cannot exceed 50 characters. Please reference the USAC-provided Data Standards for file naming convention instructions.



Field *	Validation Type	Issue Message
All	File Name	File name contains one or many invalid characters. Please reference the USAC-provided Data Standards for file naming convention instructions
All	File Format	Uploaded file has no locations. Please add location records and try again
All	File Type	File is not in CSV format, please reference the USAC-provided template.
All	File Size	The current version of this application supports upload of the file up to 30 MB in size. To upload your data, please split out your data into multiple files and re-upload them separately.
All	File Format	The uploaded file does not match the required template. Please refer to the USAC-provided template and upload the file again.

Record Level Validations

Field Name	Tool-Tip	Issue	Issue Code	Issue Message
		Category		
Study Area	SAC is	Study Area	SAC_REQUIRED	Required field
Code	required	Code Issues		
Study Area	SAC is a valid	Study Area	INVALID_SAC	Invalid Study Area
Code	six-digit	Code Issues		Code
	number			
Study Area	SAC is a six-	Study Area	INVALID_SAC_FORMAT	Invalid Study Area
Code	digit number	Code Issues		Code format
Study Area	Not	Study Area	USER_NOT_AUTHORIZED_FOR_S	Not authorized for
Code	authorized	Code Issues	AC	this SAC
	for this SAC			
Fabric	Fabric	Duplicate	DUPLICATE_FABRIC_LOCATION_I	Duplicate data
Location ID	Location ID	Data Issues	D_IN_FILE	
	already			
	exists in the			
	file			



Field Name	Tool-Tip	Issue Category	Issue Code	Issue Message
Fabric Location ID	Fabric Location ID is required	Fabric ID Issues	FABRIC_LOCATION_ID_REQUIRE D	Required field
Fabric Location ID	Fabric Location ID must be an integer value	Fabric Location ID format Issues	INVALID_FABRIC_LOCATION_ID FORMAT	Invalid Fabric ID format
Fabric Location ID	Fabric Location ID is a Ten-digit number	Fabric ID Issues	INVALID_FABRIC_LOCATION_ID_L ENGTH	Invalid Study Area Code
Fabric Location ID	Fabric Location ID doesn't exist	Valid Fabric Location ID Check	FABRIC_LOCATION_ID_NOT_FOU ND	Invalid Study Area Code
HUBB Location ID	Fabric Location ID doesn't exist	Valid Fabric Location ID Check	FABRIC_LOCATION_ID_INVALID	Invalid Study Area Code
Fabric Location ID	Fabric Location ID saved in the system	Duplicate Data Issues	DUPLICATE_FABRIC_LOCATION_I D_SAVED	Duplicate data
Fabric Location ID	Fabric Location ID exists in the system in not saved status	Duplicate Data Issues	DUPLICATE_FABRIC_LOCATION_I D_NOT_SAVED	Duplicate data
Fabric Location ID	Fabric ID exists in bulk delete	Duplicate Data Issues	DUPLICATE_FABRIC_LOCATION_ BULK_DELETE	Duplicate data
Fabric Location ID	Fund change not allowed for certified HUBB location.	Certified location & Fund Mismatch	CERT_LOC_FUND_MISMATCH	Fund change not allowed for certified HUBB location.
Fabric Location ID + Admin SAC Association	Fabric Location ID and SAC association is not valid	Invalid Fabric Location ID and SAC association	INVALID_FABRIC_LOCATION_ID_S AC_Association	INVALID Fabric Location ID SAC Association



Field Name	Tool-Tip	Issue Category	Issue Code	Issue Message
Date of Deployment	Date cannot be a future date	Date Issues	INVALID_DATE_FUTURE	Date cannot be after today's date
Date of Deployment	Date of submission is after the filing year closure date	Date Issues	LATE_LOCATION_EACAM	Late location
Date of Deployment	Date of submission is after the filing year closure date	Date Issues	LATE_LOCATION_RDOF	Late location
Date of Deployment	Date of submission is after the filing year closure date	Date Issues	LATE_LOCATION_USVI_Fixed	Late location
Date of Deployment	Date of submission is after the filing year closure date	Date Issues	LATE_LOCATION_PR_Fixed	Late location
Date of Deployment	Date cannot be prior to 01 Jan 1980	Date Issues	INVALID_DATE_EACAM	Date cannot be prior to 01/01/1980
Date of Deployment	Date cannot be prior to 01 Jul 2019	Date Issues	INVALID_DATE_RDOF	Date cannot be prior to 01 Jul 2019
Date of Deployment	Date cannot be prior to 01 Jul 2019	Date Issues	INVALID_DATE_USVI_FIXED	Date cannot be prior to 01 Jul 2019
Date of Deployment	Date cannot be prior to 01 Jul 2019	Date Issues	INVALID_DATE_PR_FIXED	Date cannot be prior to 01 Jul 2019
Date of Deployment	Date of deployment must be in MM/DD/YYYY format	Date Issues	INVALID_DATE_FORMAT	Invalid date format



Field Name	Tool-Tip	Issue Category	Issue Code	Issue Message
Date of Deployment	Date of deployment is required	Date Issues	DATE_REQUIRED	Required field
Date of Deployment	Date of Deployment must be a Valid Date	Date Issues	INVALID_DATE	Invalid date format
Date of deployment	Deployment year cannot be edited after certification	Date Issues	INVALID_DATE_OF_DEPLOYMENT _EDIT	Invalid date format
Speed Tier ID	Speed Tier ID is required	Speed Tier ID Issues	SPEED_TIER_ID_REQUIRED	Required field
Speed Tier ID	Speed Tier ID must be an integer whole number	Speed Tier ID Issues	INVALID_SPEED_TIER_ID_FORMA T	Invalid Speed Tier ID format
Speed Tier ID	Speed Tier ID cannot be selected for this fund as its below minimum speed tier id accepted by this fund	Speed Tier ID Issues	BELOW_MINIMUM_SPEED_TIER_I D_FOR_FUND	Invalid Speed Tier ID format
Speed Tier ID	Speed Tier ID is greater than EACAM max speed tier	Speed Tier ID Issues	INVALID_SPEED_TIER_ID_FOR_E ACAM	Invalid Speed Tier ID format
Speed Tier ID	Speed Tier ID is greater than RDOF max speed tier	Speed Tier ID Issues	INVALID_SPEED_TIER_ID_FOR_R DOF	Speed Tier ID cannot be selected for the SACs fund
Speed Tier ID	Speed Tier ID is greater than USVI	Speed Tier ID Issues	INVALID_SPEED_TIER_ID_FOR_U SVI_Fixed	Speed Tier ID cannot be selected for the SACs fund





	Fixed max			
	speed tier			
Speed Tier ID	Speed Tier ID is greater than PR Fixed max speed tier	Speed Tier ID Issues	INVALID_SPEED_TIER_ID_FOR_P R_Fixed	Speed Tier ID cannot be selected for the SACs fund
Carrier Location ID	Carrier Location ID cannot exceed 50 characters	Carrier Location ID Issues	INVALID_CARRIER_LOCATION_ID _FORMAT	Cannot exceed 50 characters
Technology	Technology ID is invalid	Technology ID issues	INVALID_TECHNOLOGY_ID	Invalid Technology ID
Technology	Technology ID must be a number	Technology ID Issues	INVALID_TECHNOLOGY_ID_FORM AT	Invalid Technology ID format
Technology	Technology ID required	Technology ID Issues	TECHNOLOGY_ID_REQUIRED	Required Field
Technology	Technology is missing	Technology ID Issues	TECHNOLOGY_TYPE_EMPTY_WIT H_OTHER_TECHNOLOGY_COMBI NATION	Required Field- Missing Other Technology Selection Value.
Technology	Technology is invalid	Technology ID Issues	INVALID_TECHNOLOGY_TYPE_AN D_OTHER_TECHNOLOGY_COMBI NATION	Invalid Technology ID Selection for Other Technology value.
Other Technology	Other Technology ID is required if Technology ID 7 (other) is chosen	Technology ID Issues	OTHER_TECHNOLOGY_TYPE_REQ UIRED	Invalid Technology ID Selection for Other Technology value.
Other Technology	Other Technology ID cannot contain special characters: !\$%+- ^&*()'?":;} {[]	Other Technology Field Value	INVALID_OTHER_TECHNOLOGY_F IELD_VALUE	Invalid Field Values !\$%+-^&*()'?":;} {[]



Field Name	Tool-Tip	Issue Category	Issue Code	Issue Message
Other Technology	Other Technology ID must be between two and 1,000 characters	Other Technology Field Value	INVALID_OTHER_TECHNOLOGY_ TYPE_LENGTH	Invalid Field Values !\$%+-^&*()'?":;} {[]
Other Technology	First character must be a letter or number	Other Technology Field Value	INVALD_FIRST_CHARACTER_MUS T_BE_ALPHA_OR_NUMERIC	Invalid first character
Latency	Latency ID is invalid	Latency ID Issues	INVALID_LATENCY_ID	Invalid Latency ID
Latency	Latency ID required	Latency ID Issues	LATENCY_ID_REQUIRED	Required Field
Latency	Latency ID must be a whole number	Latency ID Issues	INVALID_LATENCY_ID_FORMAT	Invalid Latency ID Format
Reason Code	Reason Code is required	Reason Code ID Issues	FABRIC_REASON_CODE_REQUIR ED	Invalid Latency ID Format
Technology	Technology is Required	Technology ID Issues	TECHNOLOGY_REQUIRED	Required Field
Latency	Latency is Required	Latency ID issues	LATENCY_REQUIRED	Required Field
Reason Code	Reason Code must be an integer Value	Reason Code ID Issues	INVALID_FABRIC_REASON_CODE _FORMAT	Required Field
Reason Code	Reason Code is invalid.	Reason Code ID Issues	INVALID_FABRIC_REASON_CODE _UPLOAD	Required Field
Reason Code	Reason Code is invalid.	Reason Code ID Issues	INVALID_FABRIC_REASON_CODE _BULK_MOD	Required Field
Reason Code	Reason Code is invalid.	Reason Code ID Issues	INVALID_FABRIC_REASON_CODE _BULK_DELETE	Required Field
Reason Code	Required Field- Missing Reason Code for Reason Explanation	Reason Code ID Issues	REASON_CODE_TYPE_EMPTY_WI TH_REASON_EXPLANATION_COM BINATION	Required Field- Missing Reason Code for Reason Explanation Selection Value.



	Selection Value.			
Reason Code	Invalid Reason Code Selection for Reason Explanation value.	Reason Code ID Issues	INVALID_REASON_CODE_TYPE_A ND_REASON_EXPLANATION_COM BINATION	Invalid Reason Code Selection for Reason Explanation value.
Reason Explanation	Reason Explanation is required if Reason Code=9	Reason Explanation Issues	FABRIC_REASON_EXPLANATION_ REQUIRED	Reason Explanation is required if Reason Code=9
Reason Explanation	Reason Explanation entered must be between 5 – 1000 characters.	Reason Explanation Issues	INVALID_ FABRIC_REASON_EXPLANATION_ LENGTH	Reason Explanation entered must be between 5 – 1000 characters.
SAC	SAC and Location ID association is invalid		INVALID_FABRIC_HUBB_LOCATIO N_ID_SAC_ASSOCIATION	
HUBB Location ID	HUBB Location ID is required	HUBB Location ID Issues	FABRIC_HUBB_LOCATION_ID_RE QUIRED	
HUBB Location ID	HUBB Location ID must be an integer Value	HUBB Location ID Issues	INVALID_FABRIC_HUBB_LOCATIO N_ID_FORMAT	
HUBB Location ID	HUBB Location ID status is invalid	HUBB Location ID Issues	INVALID_FABRIC_HUBB_LOCATIO N_ID_STATUS	
HUBB Location ID	HUBB Location ID is locked	HUBB Location ID Issues	FABRIC_HUBB_LOCATION_ID_LOCKED	
HUBB Location ID	HUBB Location ID is present in the file	Duplicate Data Issues	DUPLICATE_FABRICHUBB_LOC ATION_ID_IN_FILE	Duplicate data issues





HUBB Location ID	HUBB Location ID is already under bulk modification	Duplicate Data Issues	FABRIC_HUBB_LOCATION_UNDE R_MODIFICATION	
HUBB Location ID	HUBB Location ID does not exist	Duplicate Data Issues	INVALID_FABRIC_HUBB_LOCATIO N_ID_SAC_ASSOCIATION	
Annual Certification	SAC has been certified by SPO for Annual Certification	Status check	FABRIC_SAC_ANNUAL_CERTIFED _BY_SPO	
Annual Certification	SAC has been certified by SPO for Annual Certification	Status check	FABRIC_LOCATION_ID_SAC_ANN UAL_CERTIFIED_BY_SPO	