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Callsign/Satellite ID:

# APPLICATION FOR EARTH STATION AUTHORIZATIONS FCC 312 MAIN FORM FOR OFFICIAL USE ONLY FCC Use Only

#### APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

Anthem VSAT Network Application

Name:	Anthem Inc.	Phone Number:	978-247-6600
DBA Name:		Fax Number:	
Street:	Business Continuity, 8th Fl	E-Mail:	steve.labrique@anthem.com
	300 Brickstone Square		
City:	Andover	State:	MA
<b>Country:</b>	USA	Zipcode:	01810 –
<b>Attention:</b>	Steve LaBrique, Staff VP		

9–16. Name of Contact Representative

Name: Michael Stubbs Phone Number: 720–313–0164

Company: Fax Number:

Street: 9123 Booker Lane E–Mail: eirp@icloud.com

City: Conifer State: CO

Country: USA Zipcode: 80433-

Attention: Relationship: Other

#### **CLASSIFICATION OF FILING**

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.  a.  a.  a1. Earth Station (N/A) a2. Space Station	<ul> <li>b.</li> <li>b1. Application for License of New Station</li> <li>b2. Application for Registration of New Domestic Receive—Only Station</li> <li>(N/A) b3. Amendment to a Pending Application</li> <li>(N/A) b4. Modification of License or Registration</li> <li>(N/A) b5. Assignment of License or Registration</li> <li>(N/A) b6. Transfer of Control of License or Registration</li> <li>(N/A) b7. Notification of Minor Modification</li> <li>(N/A) b8. Application for License of New Receive—Only Station Using Non—U.S. Licensed Satellite</li> <li>(N/A) b9. Letter of Intent to Use Non—U.S. Licensed Satellite to Provide Service in the United States</li> <li>b10. Other (Please specify)</li> <li>b11. Application for Earth Station to Access a Non—U.S.satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States.</li> <li>b12. Application for Database Entry</li> <li>(N/A) b13. Amendment to a Pending Database Entry Application</li> <li>(N/A) b14. Modifiction of Database Entry</li> </ul>
17c. Is a fee submitted with this application If Yes, complete and attach FCC Form	on? 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).
Ofther(please explain):	rcial educational licensee
17d.  Fee Classification BGV – Fixed Satellite V	SAT System

18. If this filing is in reference to an existing station, enter:  (a) Call sign of station:  Not Applicable	19. If this filing is an amendment to a pendin (a) Date pending application was filed:  Not Applicable	ng application enter:  (b) File number of pending application:  Not Applicable
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TYPE OF SERVICE	
20. NATURE OF SERVICE: This filing is for an authorization to provide	or use the following type(s) of service(s): Select all that apply:
a. Fixed Satellite b. Mobile Satellite c. Radiodetermination Satellite d. Earth Exploration Satellite e. Direct to Home Fixed Satellite	
f. Digital Audio Radio Service g. Other (please specify)	
	22. If earth station applicant, check all that apply.  Using U.S. licensed satellites  Using Non–U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER set facilities:  Connected to a Public Switched Network  Not connected to	rvice, see instructions regarding Sec. 214 filings. Choose one. Are these of a Public Switched Network N/A

24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).
a. C–Band (4/6 GHz) <b>b</b> Ku–Band (12/14 GHz)
c.Other (Please specify upper and lower frequencies in MHz.)
Frequency Lower: Frequency Upper:
TYPE OF STATION
25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.
a. Fixed Earth Station
b. Temporary–Fixed Earth Station
c. 12/14 GHz VSAT Network
d. Mobile Earth Station
(N/A) e. Geostationary Space Station
(N/A) f. Non-Geostationary Space Station
g. Other (please specify)
26. TYPE OF EARTH STATION FACILITY: Choose only one.
Transmit/Receive Transmit-Only Receive-Only N/A
PURPOSE OF MODIFICATION
27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)
Not Applicable

#### ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.	C	Yes	<b>⊚</b> No	D.
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aerona aeronautical fixed radio station services are not required to respond to Items 30–34.	utical e	n route	or	
29. Is the applicant a foreign government or the representative of any foreign government?	O Yes	s <b>⊚</b> N	0	
30. Is the applicant an alien or the representative of an alien?	O Yes	6 <b>6</b> N	o <b>o</b> N	J/A
31. Is the applicant a corporation organized under the laws of any foreign government?	O Yes	s <b>⊚</b> N	о <b>о</b> <sup>N</sup>	J/A
32. Is the applicant a corporation of which more than one–fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	O Yes	6 N	o <b>o</b> N	I/A

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one–fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	◆ Yes ◆ N	No O N/A
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.		
BASIC QUALIFICATIONS		
35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	O Yes	No
	Exhibit D	
36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances.	O Yes	No

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances.	O Yes	<b>⊚</b> No
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances	O Yes	<b>⊚</b> No
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhinit, an explanation of the circumstances.	O Yes	<b>⊘</b> No
40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.		

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti–Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.	Yes	O No
42a. Does the applicant intend to use a non–U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.	O Yes	No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, w coordinated or is in the process of coordinating the space station?	hat administr	ration has

43. Description. (Summarize the nature of the application and the services to be provided). not appear in this box, please go to the end of the form to view it in its entirety.)

(If the complete description does

Anthem Inc. requests Federal Communication Commission authorization to operate a new FSS Ku-Band VSAT network. This network will be utilized to provide two-way broadband data communication services, comprised of digital voice, video and data, to business units and affiliated service and support organizations.

Exhibit A

43a. Geographic Service Rule Certification By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.	O A
By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.	<b>●</b> B
By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.	<b>o</b> c

#### **CERTIFICATION**

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

O Individual				
<ul> <li>Unincorporated Association</li> </ul>				
Partnership				
Corporation				
Governmental Entity				
Other (please specify)				
45. Name of Person Signing Steve LaBrique  47. Please supply any need attachmen		46. Title of Pers Staff Vice Presid	dent	
Attachment 1: Exhibit B	Attachment 2:		Attachment 3:	
Attachment 1. Exhibit b				

Location of Earth Station Site

E1: Site Identifier: Anthem\_PWM E5. Call Sign:

E2: Contact Name Peter Carter E6. Phone 207–822–4685

Number:

E3. Street: 2 Gannett Drive E7. City: South Portland

E8. County: Cumberland

E4. State ME E9. Zip Code 04106

E10. Area of Operation: CONUS,AK,HI,PR,VI

E11. Latitude: 43 °38 '1.6 "N

E12. Longitude: 70 °21 '6.6 "W

E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A

E14. Site Elevation (AMSL): 29.0 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.	<b>●</b> Y	es	O No	O N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non–geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	OY	es	O No	<b>⊚</b> N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	0 '	Yes	•	No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0 7	Yes	•	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0 '	Yes	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	1	Yes	•	No
POINTS OF COMMUNICATION				
Satellite Name: PERMITTED LIST   If you selected OTHER, please enter the following:				

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
POINTS OF COMMUNICATION (Destination Points)	

E25. Site Identifier: Anthem_PWM	
E26. Common Name:	E27. Country: USA

# ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna GainTransmint and/or Recieve (dBi atGHz)
Anthem_PWM	HUB3_7A	1	Suman	SM-T3.7R	3.7	52.3 dBi at 14.25
						51.5 dBi at 11.850

Id	E33/34. Diameter Minor/Major (meters)		(meters)	Height Above Ground Level 	Input Power at antenna flange (Watts)	Maximum Antenna Height	E40. Total EIRP for al carriers  (dBW)
HUB3_7A	3.7/3.7	32.5	61.5	28.0	360.0	4.5	77.86

# FREQUENCY

E28. Antenna Id	E43/44.	E45. T/R Mode	E46. Antenna	E47. Emission	E48. Maximum	E49. Maximum
	Frequency Bands		Polarization(H,V,	Designator	EIRP per Carrier	ERIP Density per
	(MHz)		L,R)		(dBW)	Carrier
						(dBW/4kHz)
						(ub W/4KIIZ)

HUB3_7A	11700 12200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If t	he complete descripti	on does not appear	in this box, please g	o to the end of th	ne form to view it in its
Various Ph	nase Modulation	n and FEC, digi	tal data, voi	ce and video		
HUB3_7A	14000 14500	Т	Horizontal and Vertical	100KG7W	52.3	38.3
Various Ph	nase Modulation	n and FEC, digi	tal data, voi	ce and video		
HUB3_7A	14000 14500	Т	Horizontal and Vertical	36M0G7W	77.86	38.3
E50. Modulation entirety.)	and Services (If the	he complete descripti	on does not appear	in this box, please g	o to the end of th	ne form to view it in its
Various Ph	nase Modulation	n and FEC, digi	tal data, voi	ce and video		

HUB3_7A	11700	R	Horizontal and	100KG7W	0.0	0.0
	12200		Vertical			
F50 Modulation	and Services (If th	e complete description	on does not appear in	this box please go to	the end of the form	to view it in its

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Various Digital Phase Modulation and FEC, digital data, voice and video

### FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	E56. Earth Station Azimuth Angle Eastern Limit	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
HUB3_7A	Geostationary	11700 12200	1.0/ 140.0	104.6	6.0	255.6	5.95	0.0
	Geostationary	14000 14500	1.0/ 140.0	104.6	6.0	255.6	5.95	-1.36

E61. Call Sign	E65. Phone Number
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.	
E62. Street Address	

E63. City	E67. County	E64/68.	E66. Zip Code
		State/Country	
		/	

Location of Earth Station Site

E1: Site Identifier: Anthem\_STL E5. Call Sign:

E2: Contact Name Bruce Crocker E6. Phone 314–452–4347

Number:

E3. Street: 1831 Chestnut E7. City: Saint Louis

Street

E8. County: Saint Louis City

E4. State MO E9. Zip Code 63103

E10. Area of Operation: CONUS,AK,HI,PR,VI

E11. Latitude: 38 °37 '48.9 "N

E12. Longitude: 90 °12 '26.4 "W

E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A

E14. Site Elevation (AMSL): 143.3 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.	<b>⊚</b> Ye	s <b>O</b>	No No	O N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non–geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	O Yes	s o	No	<b>⊚</b> N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	O Ye	es	<b>●</b>	No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	O Ye	es	•	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	O Ye	es	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	O Ye	es	•	No
POINTS OF COMMUNICATION				
Satellite Name: PERMITTED LIST   If you selected OTHER, please enter the following:				

E21. Common Name:						E22. ITU Name:						
E23. Orbit Location:							E24. Cou	ntry:				
POINTS OF	CO	MMUNICAT	ION	(Destination	Points	)						
E25. Site Identif	ier:											
E26. Common N	Vame	):					E27. Cou	ntry:				
ANTENNA							ļ.					
Site ID		E28. Antenna	Id	E29. Quant	ity	E30. Manufac	turer	E31. N	<b>Aodel</b>	_	Antenna <meters></meters>	E41/42. Antenna GainTransmint and/or Recieve (dBi at GHz)
Anthem_STL		HUB3_7A		1		Suman		SM-T	3.7R	3.7		51.5 dBi at 11.8
												52.3 dBi at 14.2
E28. Antenna Id	Di Mi	33/34. ameter inor/Major neters)	Gro	el 	E36. A Level< (meter		E37. Buil Height A Ground Level <bi (meters)</bi 	bove	E38. Total Input Powe antenna flange <br (Watts)</br 		E39. Maximum Antenna Heig Above Rooftop (meters)	E40. Total EIRP for al carriers  (dBW)
HUB3_7A		7/3.7	46.6		183.7		42.1		360.0		4.5	77.86
FREQUENCY												
E28. Antenna I		E43/44. Frequency Ba (MHz)	nds	E45. T/R M	ode	E46. Anto Polarizat L,R)		E47. E Design	Emission nator		Maximum P per Carrier W)	E49. Maximum ERIP Density p Carrier (dBW/4kHz)

HUB3_7A	11700 12200	R	Horizontal and Vertical	100KG7W	0.0	0.0
E50. Modulation entirety.)	n and Services (If t	he complete descrip	tion does not appear	in this box, please	go to the end of the	he form to view it in its
Various Pl	nase Modulation	n and FEC, dig	gital data, voi	ce and video		
HUB3_7A	11700 12200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
Various Pl	nase Modulation	n and FEC, dig	gital data, voi	ce and video.		
HUB3_7A	14000 14500	Т	Horizontal and Vertical	100KG7W	52.3	38.3
E50. Modulation entirety.)  Various Pl	n and Services (If t					he form to view it in its

HUB3_7A	14000	Horizontal and	36M0G7W	77.86	38.3
	14500	Vertical			

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Various Phase Modulation and FEC, digital data, voice and video

#### FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	E56. Earth Station Azimuth Angle Eastern Limit	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
HUB3_7A	Geostationary	11700 12200	19.0/ 161.0	102.0	5.95	257.7	6.3	0.0
	Geostationary	14000 14500	19.0/ 161.0	102.0	5.95	257.7	6.3	-1.36

E61. Call Sign	E65. Phone Number
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.	
E62. Street Address	

E63. City	E67. County	E64/68.	E66. Zip Code
		State/Country	
		/	

Location of Earth Station Site

E2: Contact Name Jay Chambers E6. Phone 540–564–9637

Number:

E3. Street: 1175 North Main E7. City: Harrisonburg

Street

E8. County: Harrisonburg City

E4. State VA E9. Zip Code 22802

E10. Area of Operation: CONUS,AK,HI,PR,VI

E11. Latitude: 38 °27 '47.9 "N

E12. Longitude: 78 °51 '25.6 "W

E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A

E14. Site Elevation (AMSL): 417.3 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with	• Yes	O No	O N/A
two-degree spacing policy.			
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non–geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	O Yes	O No	<b>⊚</b> N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	O Yes	•	No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	O Yes	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	O Yes	•	No
POINTS OF COMMUNICATION			
Satellite Name:PERMITTED LIST   If you selected OTHER, please enter the following:			

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
POINTS OF COMMUNICATION (Destination Points)	

E25. Site Identifier: Anthem_SHD	
E26. Common Name:	E27. Country: USA

# ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna GainTransmint and/or Recieve (dBi atGHz)
Anthem_SHD	HUB4_8A	1	GD Satcom	4.8m Cassagrain	4.8	53.5 dBi at 11.85
						55.2 dBi at 14.125

Id	Diameter		(meters)	Height Above Ground Level 	Input Power at antenna flange (Watts)	Maximum Antenna Height	E40. Total EIRP for al carriers  (dBW)
HUB4_8A	4.8/4.8	5.4	422.7	0.0	360.0	0.0	80.76

# FREQUENCY

ſ	E28. Antenna Id	E43/44.	E45. T/R Mode	E46. Antenna	E47. Emission	E48. Maximum	E49. Maximum
		Frequency Bands		Polarization(H,V,	Designator	EIRP per Carrier	ERIP Density per
		(MHz)		<b>L</b> , <b>R</b> )		(dBW)	Carrier
							(dBW/4kHz)

HUB4_8A	11700 12200	R	Horizontal and Vertical	100KG7W	0.0	0.0
E50. Modulatio entirety.)	n and Services (If	the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
Various P	hase Modulatio	on and FEC,	digital data, voi	ice and video		
HUB4_8A	11700 12200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
valious r	nodulaci	on and rec,	digital data, voi	ece and video		
HUB4_8A	14000 14500	Т	Horizontal and Vertical	100KG7W	55.2	41.2
E50. Modulatio entirety.)	n and Services (If	the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
Various P	hase Modulatio	on and FEC,	digital data, vo	ice and video		

HUB4_8A	14000 14500	T	Horizontal and Vertical	36M0G7W	80.76	41.2
E50. Modulation entirety.)	and Services (If th	e complete description	on does not appear in	this box, please go to	the end of the form	to view it in its

Various Phase Modulation and FEC, digital data, voice and video

# FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	E56. Earth Station Azimuth Angle Eastern Limit	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
HUB4_8A	Geostationary	11700 12200	8.0/ 150.0	102.2	6.25	258.0	6.0	0.0
	Geostationary	14000 14500	8.0/ 150.0	102.2	6.25	258.0	6.0	-1.45

E61. Call Sign	E65. Phone Number
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.	
E62. Street Address	

E63. City	E67. County	E64/68.	E66. Zip Code
		State/Country	
		/	

Location of Earth Station Site

E1: Site Identifier: Remote E5. Call Sign:

E2: Contact Name Steve LaBrique E6. Phone 978–247–6600

Number:

E3. Street: E7. City:

E8. County:

E4. State E9. Zip Code

E10. Area of Operation: CONUS,AK,HI,PR,VI

E11. Latitude: 0 °0 '0.0 "N

E12. Longitude: 0 °0 '0.0 "W

E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A

E14. Site Elevation (AMSL): 0.0 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.	<b>⊚</b> Ye	s <b>O</b>	No No	O N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non–geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	O Yes	s o	No	<b>⊚</b> N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	O Ye	es	<b>●</b>	No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	O Ye	es	•	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	O Ye	es	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	O Ye	es	•	No
POINTS OF COMMUNICATION				
Satellite Name: PERMITTED LIST   If you selected OTHER, please enter the following:				

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
POINTS OF COMMUNICATION (Destination Points)	
E25. Site Identifier: Remote	

·	•
E26. Common Name:	E27. Country:USA
E23. Site identifier: Remote	

### ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna GainTransmint and/or Recieve (dBi atGHz)
Remote	REM1_2A	500	GD Satcom	1134	1.2	41.5 dBi at 11.85
						43.0 dBi at 14.125

E28. Antenna Id	Diameter	E35. Above Ground Level  (meters)	(meters)	Height Above Ground	Input Power at antenna flange 	Maximum Antenna Height	E40. Total EIRP for al carriers  (dBW)
REM1_2A	1.2/1.2	2.0	0.0	0.0	100.0	0.0	63.0

# FREQUENCY

E28. Antenna Id	E43/44.	E45. T/R Mode	E46. Antenna	E47. Emission	E48. Maximum	E49. Maximum
	Frequency Bands		Polarization(H,V,	Designator	EIRP per Carrier	ERIP Density per
	(MHz)		<b>L</b> , <b>R</b> )		(dBW)	Carrier
						(dBW/4kHz)

REM1_2A	11700 12200	R	Horizontal and Vertical	100KG7W	0.0	0.0
E50. Modulation entirety.)	and Services (If t	he complete descrip	tion does not appear	in this box, please	go to the end of t	he form to view it in its
Various Pl	nase Modulation	n and FEC, dig	gital data, voi	ce and video		
REM1_2A	11700 12200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
Various Pl	nase Modulation	n and FEC, dig	gital data, voi	.ce and video		
REM1_2A	14000 14500	Т	Horizontal and Vertical	100KG7W	43.0	29.0
E50. Modulation entirety.)	and Services (If t	he complete descrip	tion does not appear	in this box, please	go to the end of t	he form to view it in its
Various Pl	nase Modulation	n and FEC, dig	gital data, voi	ce and video		

REM1_2A	14000	T	Horizontal and	10M0G7W	63.0	29.0
	14500		Vertical			
E50 Modulation and Complete (If the complete description does not appear in this have placed as to the and of the forms to view it in its						

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Various Phase Modulation and FEC, digital data, voice and video

### FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	E56. Earth Station Azimuth Angle Eastern Limit	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
REM1_2A	Geostationary	11700 12200	30.0/ 140.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000 14500	30.0/ 140.0	0.0	5.0	0.0	5.0	0.53

E61. Call Sign	E65. Phone Number
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.	
E62. Street Address	

E63. City	E67. County	E64/68.	E66. Zip Code
		State/Country	
		/	

Location of Earth Station Site

E1: Site Identifier: Remote E5. Call Sign:

E2: Contact Name Steve LaBrique E6. Phone 978–247–6600

Number:

E3. Street: E7. City:

E8. County:

E4. State E9. Zip Code

E10. Area of Operation: CONUS,AK,HI,PR,VI

E11. Latitude: 0 °0 '0.0 "N

E12. Longitude: 0 °0 '0.0 "W

E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A

E14. Site Elevation (AMSL): 0.0 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.	<b>⊚</b> Yes	O No	O N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non–geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	O Yes	O No	● N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	O Yes	•	No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	O Yes	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation?  FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	O Yes	•	No
POINTS OF COMMUNICATION			
Satellite Name:PERMITTED LIST   If you selected OTHER, please enter the following:			

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

## POINTS OF COMMUNICATION (Destination Points)

E25. Site Identifier: Remote	
E26. Common Name:	E27. Country: USA

## ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna GainTransmint and/or Recieve (dBi atGHz)
Remote	REM1_8A	200	GD Satcom	1194	1.8	45.2 dBi at 11.85
						46.7 dBi at 14.125
	REM1_8B	5	AVL	1888		44.8 dBi at 11.450
						46.8 dBi at 14.125
	REM1_8C	50		1810		45.0 dBi at 11.85
						46.7 dBi at 14.125
	REM2_4A		GD Satcom	1241	2.4	47.4 dBi at 11.85
						49.2 dBi at 14.125

REM3_7A	Suman	SM-T3.7R	3.7	51.5 dBi at 11.85
				52.3 dBi at 14.25

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level  (meters)	E36. Above Sea Level  (meters)	Height Above Ground		Maximum Antenna Height	E40. Total EIRP for al carriers  (dBW)
REM1_8A	1.8/1.8	2.6	0.0	0.0	200.0	0.0	69.71
REM1_8B	1.8/1.8	5.0	0.0	0.0	250.0	0.0	70.78
REM1_8C	1.8/1.8	5.0	0.0	0.0	250.0	0.0	70.68
REM2_4A	2.4/2.4	3.2	0.0	0.0	300.0	0.0	73.97
REM3_7A	3.7/3.7	4.5	0.0	0.0	360.0	0.0	77.86

# FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode			E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
REM1_8A	11700 12200	R	Horizontal and Vertical	100KG7W	0.0	0.0

E50. Modulation entirety.)	on and Services (I	f the complete d	escription does not appear	in this box, please	go to the end of the	he form to view it in its
Various F	Phase Modulati	on and FEC,	digital data, voi	ce and video		
REM1_8A	11700 12200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
E50. Modulation entirety.)	on and Services (I	f the complete d	escription does not appear	in this box, please	go to the end of the	he form to view it in its
Various F	Phase Modulati	on and FEC,	digital data, voi	ce and video		
REM1_8A	14000 14500	Т	Horizontal and Vertical	100KG7W	46.7	32.7
E50. Modulation entirety.)	on and Services (I	f the complete d	escription does not appear	in this box, please	go to the end of the	he form to view it in its
Various E	hase Modulati	on and FEC,	digital data, voi	ce and video		
REM1_8A	14000 14500	Т	Horizontal and Vertical	20M0G7W	69.71	32.7

E50. Modulation entirety.)	n and Services (If	the complete descrip	tion does not appear	in this box, please	go to the end of t	he form to view it in it	ts
	nase Modulatio	n and FEC, dig	ital data, voi	ce and video			
REM1_8B	11700 12200	R	Horizontal and Vertical	100KG7W	0.0	0.0	
E50. Modulation entirety.)  Various Pl		the complete descrip			go to the end of t	he form to view it in it	ī.s
REM1_8B	11700 12200	R	Horizontal and Vertical	36M0G7W	0.0	0.0	
E50. Modulation entirety.)  Various Pl		the complete description and FEC, dig			go to the end of t	he form to view it in it	:S
REM1_8B	14000 14500	Т	Horizontal and Vertical	100KG7W	46.8	32.8	

E50. Modulation entirety.)	and Services (If the	he complete descripti	on does not appear in	n this box, please go	to the end of the form	to view it in its
T	nase Modulatior	n and FEC, digi	tal data, voic	ce and video		
REM1_8B	14000 14500	Т	Horizontal and Vertical	25M0G7W	70.78	32.8
E50. Modulation entirety.)  Various Ph	n and Services (If the name Modulation				to the end of the form	to view it in its
REM1_8C	11700 12200	R	Horizontal and Vertical	100KG7W	0.0	0.0
E50. Modulation entirety.)  Various Ph	n and Services (If the nase Modulation				to the end of the form	to view it in its
REM1_8C	11700 12200	R	Horizontal and Vertical	36M0G7W	0.0	0.0

E50. Modulation entirety.)	and Services (If	he complete descript	ion does not appear i	n this box, please go	to the end of the form	1 to view it in its
T	nase Modulatio	n and FEC, dig	ital data, voi	ce and video		
REM1_8C	14000 14500	Т	Horizontal and Vertical	100KG74	46.7	32.7
E50. Modulation entirety.)  Various Ph		the complete descript			to the end of the forn	1 to view it in its
REM1_8C	14000 14500	Т	Horizontal and Vertical	25M0G7W	70.68	32.7
E50. Modulation entirety.)  Various Ph		the complete description and FEC, dig:			to the end of the form	n to view it in its
REM2_4A	11700 12200	R	Horizontal and Vertical	100KG7W	0.0	0.0

E50. Modulatio entirety.)	n and Services (	If the complete de	escription does not appear	in this box, please	go to the end of the	he form to view it in	its
Various P	hase Modulat:	ion and FEC,	digital data, voi	ce and video			
REM2_4A	11700 12200	R	Horizontal and Vertical	36M0G7W	0.0	0.0	
E50. Modulatio entirety.)  Various P			escription does not appear i			ne form to view it in	
REM2_4A	14000 14500	Т	Horizontal and Vertical	100KG7W	49.2	35.2	
E50. Modulatio entirety.)  Various P			escription does not appear i			he form to view it in	its
REM2_4A	14000 14500	Т	Horizontal and Vertical	30M0G7W	73.97	35.2	

E50. Modulatio entirety.)	n and Services (	If the complete d	escription does not appear i	n this box, please	go to the end of t	he form to view it in	its
	hase Modulati	on and FEC,	digital data, voi	ce and video			
REM3_7A	11700 12200	R	Horizontal and Vertical	100KG7W	0.0	0.0	
E50. Modulatio entirety.)  Various P	`	•	escription does not appear i digital data, voi			he form to view it in	its
REM3_7A	11700 12200	R	Horizontal and Vertical	36M0G7W	0.0	0.0	
E50. Modulatio entirety.)  Various P	·		escription does not appear i			he form to view it in	its
REM3_7A	14000 14500	Т	Horizontal and Vertical	100KG7W	52.3	38.3	

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Various Phase Modulation and FEC, digital data, voice and video

REM3_7A	14000	Т	Horizontal and	36M0G7W	77.86	38.3
	14500		Vertical			

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Various Phase Modulation and FEC, digital data, voice and video

#### FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	Station Azimuth Angle	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
REM1_8A	Geostationary	11700 12200	30.0/ 140.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000 14500	30.0/ 140.0	0.0	5.0	0.0	5.0	0.53

REM1_8B	Geostationary	11700 12200	30.0/ 140.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000 14500	30.0/ 140.0	0.0	5.0	0.0	5.0	0.53
REM1_8C	Geostationary	11700 12200	30.0/ 140.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000 14500	30.0/ 140.0	0.0	5.0	0.0	5.0	0.53
REM2_4A	Geostationary	11700 12200	30.0/ 140.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000 14500	30.0/ 140.0	0.0	5.0	0.0	5.0	0.53
REM3_7A	Geostationary	11700 12200	30.0/ 140.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000 14500	30.0/ 140.0	0.0	5.0	0.0	5.0	0.53

### REMOTE CONTROL POINT LOCATION

E61. Call Sign	E65. Phone Number			
NOTE: Please enter the callsign of the control callsign for which this application is being filed.	•			
E62. Street Address				
E63. City	E67. County		E64/68. State/Country	E66. Zip Code

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