

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD – MAIN FORM	FCC Use Only
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	

APPLICANT INFORMATION *(MES) Mobile Earth Satellite*

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

Amendment to Transfer of Control of Its Calibration Mobile Satellite Earth Station (Call Sign E070291) to DISH Network Corporation

1-8. Legal Name of Applicant			
Name:	New DBSD Satellite Services G.P., Debtor-in-Possession	Phone Number:	703-964-1417
DBA Name:		Fax Number:	
Street:	11700 Plaza America Drive Suite 1010	E-Mail:	stephen.deweese@ico.com
City:	Reston	State:	VA
Country:	USA	Zipcode:	20190 -
Attention:	Stephen M. DeWees		

9-16. Name of Contact Representative

Name:	Peter Corea	Phone Number:	(202) 577-1491
Company:	New DBSD Satellite Services G.P., Debtor- in-Possession	Fax Number:	
Street:	11700 Plaza America Drive Suite 1010	E-Mail:	peter.corea@ico.com
City:	Reston	State:	VA
Country:	USA	Zipcode:	20190-
Attention:	Peter Corea	Relationship:	Same

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.

- a1. Earth Station
- a2. Space Station

- (N/A) b1. Application for License of New Station
- (N/A) b2. Application for Registration of New Domestic Receive-Only Station
- b3. Amendment to a Pending Application
- b4. Modification of License or Registration
- b5. Assignment of License or Registration
- b6. Transfer of Control of License or Registration
- b7. Notification of Minor Modification
- (N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite
- (N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
- (N/A) b10. Other (Please specify)
- (N/A) 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
- (N/A) b12. Application for Database Entry
- b13. Amendment to a Pending Database Entry Application
- b14. Modification of Database Entry

17c. Is a fee submitted with this application?

- If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).
- Governmental Entity Noncommercial educational licensee
- Other (please explain):

17d.

Fee Classification CGB – Mobile Satellite Earth Stations

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. Ku-Band (12/14 GHz)

c. Other (Please specify upper and lower frequencies in MHz.)

Frequency Lower: 2000

Frequency Upper: 2020

(Please specify additional frequencies in an attachment)

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
- e. Geostationary Space Station
- f. Non-Geostationary Space Station
- g. Other (please specify) Beacon stations for MSS system

26. TYPE OF EARTH STATION FACILITY:

- Transmit/Receive Transmit-Only Receive-Only N/A

"For Space Station applications, select 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.)

- a — authorization to add new emission designator and related service
- b — authorization to change emission designator and related service
- c — authorization to increase EIRP and EIRP density
- d — authorization to replace antenna
- e — authorization to add antenna
- f — authorization to relocate fixed station
- g — authorization to change frequency(ies)
- h — authorization to add frequency
- i — authorization to add Points of Communication (satellites & countries)
- j — authorization to change Points of Communication (satellites & countries)
- k — authorization for facilities for which environmental assessment and radiation hazard reporting is required
- l — authorization to change orbit location
- m — authorization to perform fleet management
- n — authorization to extend milestones
- o — Other (Please specify)

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. Yes No

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30-34.

29. Is the applicant a foreign government or the representative of any foreign government? Yes No

30. Is the applicant an alien or the representative of an alien? Yes No N/A

31. Is the applicant a corporation organized under the laws of any foreign government? Yes No N/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? Yes No N/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 No 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.

Yes No

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 explanation of circumstances.

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 explanation of circumstances.

Yes 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

Yes 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 exhibit, an explanation of the circumstances.

Yes 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 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.

Yes No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station? United Kingdom

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

Amendment to transfer of control of its transmit/receive mobile earth station from New DBSD Satellite Services G.P., Debtor-in-Possession and ICO Global Communications (Holdings) Limited to DISH Network Corporation. See attached narrative.

Narrative

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.

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

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.

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.

44. Applicant is a (an): (Choose the button next to applicable response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify)

45. Name of Person Signing
Stephen M. DeWees

—>

46. Title of Person Signing
Director

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT
(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION
(U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERM, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember - You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

Application of

**DBSD NORTH AMERICA, INC., DEBTOR-IN-
POSSESSION; NEW DBSD SATELLITE
SERVICES G.P., DEBTOR-IN-POSSESSION; AND
PENDRELL CORPORATION,**

Transferors,

and

DISH NETWORK CORPORATION,

Transferee,

For Authority to Transfer Control.

File Nos. SES-T/C-20110408-00424,
SES-T/C-20110408-00425, and
SAT-T/C-20110408-00071.

Call Signs: S2651, E080035, E080070,
E070291, E070290, and
E070272.

AMENDMENT TO APPLICATION FOR TRANSFER OF CONTROL

August 22, 2011

TABLE OF CONTENTS

I. INTRODUCTION..... 1

**II. THE COMBINATION OF DBSD’S AND TERRESTAR’S ASSETS WILL
CREATE SIGNIFICANT PUBLIC INTEREST BENEFITS 3**

III. DISH’S UPDATED PLAN 5

IV. REQUESTED FLEXIBILITY 7

A. Waiver Requests and Criteria7

B. “Integrated Service” Requirement.....9

C. Spare Satellite Requirement11

**D. Request for Clarification of Section 25.252(a)(1) of the Commission’s
Rules14**

E. DISH’s Commitments if Flexibility Is Granted14

1. Buildout Commitments 14

2. Integrated Network, Sufficient Satellite Capacity 15

**V. CONSOLIDATION WITH DBSD’S APPLICATION FOR MODIFICATION OF
ATC AUTHORITY 15**

**VI. CONSOLIDATION WITH TERRESTAR’S TRANSFER AND MODIFICATION
APPLICATIONS 16**

VII. CONCLUSION 16

ATTACHMENTS

ATTACHMENT 1: RESPONSE TO FCC FORM 312, QUESTION 36

**ATTACHMENT 2: RESPONSE TO FCC FORM 312, QUESTION 40, AND SCHEDULE
A, QUESTION A20**

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

Application of

**DBSD NORTH AMERICA, INC., DEBTOR-IN-
POSSESSION; NEW DBSD SATELLITE
SERVICES G.P., DEBTOR-IN-POSSESSION; AND
PENDRELL CORPORATION,**

Transferors,

and

DISH NETWORK CORPORATION,

Transferee,

For Authority to Transfer Control.

File Nos. SES-T/C-20110408-00424,
SES-T/C-20110408-00425, and
SAT-T/C-20110408-00071.

Call Signs: S2651, E080035, E080070,
E070291, E070290, and
E070272.

AMENDMENT TO APPLICATION FOR TRANSFER OF CONTROL

I. INTRODUCTION

DISH Network Corporation (“DISH”), Pendrell Corporation (formerly, ICO Global Communications (Holdings) Limited),¹ DBSD North America Inc., Debtor-in-Possession, and New DBSD Satellite Services G.P., Debtor-in-Possession (the “Applicants”) file this amendment to their April 8, 2011, application for the transfer of control of the authorizations held by New DBSD Satellite Services G.P., Debtor-in-Possession (“DBSD”) to DISH (the “Application”).

The Application requests approval for DISH’s acquisition of control over DBSD, one of the two

¹ On July 21, 2011, Pendrell Corporation announced that its name change from ICO Global Communications (Holdings) Limited became effective. See Press Release, Pendrell, *ICO Global Communications Name Change to Pendrell Corporation Becomes Effective* (July 21, 2011), available at http://www.pendrell.com/_files/Pendrell%20Name%20Change%20-%20CFO%20appointment%20release.pdf. Pursuant to Section 1.65 of the Commission’s rules, the Applicants notify the Commission of this name change. See 47 C.F.R. § 1.65.

Mobile-Satellite Service (“MSS”) operators assigned spectrum in the 2000-2020 MHz and 2180-2200 MHz bands (“S-band”). The purpose of this amendment is to reflect a parallel and complementary transaction proposed in an application filed today by TerreStar Networks Inc., Debtor-in-Possession, and TerreStar License Inc., Debtor-in-Possession (collectively, “TerreStar”) and DISH (“DISH-TerreStar Application”). In that application, DISH proposes to acquire control over the licenses and facilities of TerreStar, the other 2 GHz MSS licensee.

In their Application, the Applicants anticipated the potential combination of TerreStar’s and DBSD’s authorizations and assets by DISH. In the competitive analysis, specifically, the Applicants attributed to DISH, through its affiliation with EchoStar, an interest in TerreStar, while reaching the conclusion that this transaction was in the public interest. That competitive analysis therefore remains accurate. With respect to the benefits of the DBSD acquisition, the Applicants pointed out that they would be greater, and the resulting service would likely be more competitive, if the spectrum and satellite resources of the two operators were to be combined. If anything, the Applicants can say so with greater certainty now.

The Applicants therefore amend the Application: (1) to provide a more detailed showing of the benefits arising out of the proposed aggregation of DBSD’s and TerreStar’s spectrum and assets; (2) to amend and supplement DISH’s plan for use of these resources in light of the DISH-TerreStar transaction; (3) to request waivers or clarification of certain ancillary terrestrial component (“ATC”) rules, including the integrated service and spare satellite rules;² and (4) to request consolidation of the DBSD and TerreStar proceedings.

² DBSD is filing contemporaneously a request to modify its existing ATC authorization to reflect the requested waiver authority.

II. THE COMBINATION OF DBSD'S AND TERRESTAR'S ASSETS WILL CREATE SIGNIFICANT PUBLIC INTEREST BENEFITS

As the Applicants explained when they originally filed the Application, DISH has been exploring the amount of spectrum necessary to satisfy the bandwidth demands of mobile broadband service and create a viable stand-alone provider.³ DISH had expressed the view that each of the two 2 GHz MSS spectrum assignments would not be enough, standing alone, to support a robust, nationwide mobile broadband service. As the Applicants said then, the combination of DBSD's and TerreStar's "spectrum assignments, while still paling in comparison to the holdings of incumbent mobile broadband providers, would greatly enhance DISH's ability to provide high quality services and compete in the provision of mobile broadband services."⁴

The DISH-TerreStar Application reflects and confirms this view. Combining the two 2 GHz MSS spectrum assignments will greatly increase DISH's ability to make efficient use of the S-band spectrum to increase competition. Additionally, if the combined 2 GHz spectrum and satellite resources are accompanied by grant of DBSD's and TerreStar's modification applications and waiver requests filed today, DISH believes it can launch a viable service capable of being at least a partial competitive substitute for services offered by Commercial Mobile Radio Service ("CMRS") providers. As detailed below in DISH's plan, by acquiring control of these two S-band providers, DISH will be better able to meet the expanding bandwidth requirements of mobile broadband, relying on the LTE Advanced standard to bring the most spectrum efficient technology to the market and leapfrogging the technologies currently in use.

³ Application of ICO Global Communications (Holdings) Limited; DBSD North America, Inc. Debtor-in-Possession; New DBSD Satellite Services G.P. Debtor-in-Possession, Transferors, and DISH Network Corporation, Transferee, for Authority to Transfer Control, File Nos. SES-T/C-20110408-00424, SES-T/C-20110408-00425, and SAT-T/C-20110408-00071, at 15 (filed Apr. 8, 2011) ("DBSD-DISH Application").

⁴ *Id.* at 16.

Additionally, upon consummation of both transactions, DISH will possess two in-orbit, state-of-the-art MSS satellites, DBSD's G-1 (currently positioned at 92.85° W.L.) and TerreStar's T-1 (currently positioned at 111° W.L.). Both satellites are capable of providing MSS in the S-band over all 50 states, Puerto Rico, and the U.S. Virgin Islands, and given the significant capacity available as a result of potential interoperabilities between DBSD's G-1 and TerreStar's T-1 satellites, it is likely that any capacity shifting or redeployment that might be needed for business concerns could be accommodated with limited additional support.

To be sure, these benefits will be no panacea for all of the ills afflicting the increasingly concentrated CMRS market today, and particularly for the problems that the proposed AT&T/T-Mobile combination bodes for competition. DISH's plan is threatened by that transaction;⁵ it would produce the nation's single largest CMRS provider and would result in a virtual duopoly within the mobile voice and data services market, with the top two carriers, AT&T and Verizon, controlling almost 80% of the market and over 90% of the industry's free cash flow.⁶ As the Commission has previously recognized, entrants into mobile voice and data services already face "major structural features that may act as entry barriers."⁷ Permitting this level of market

⁵ Applications of AT&T Inc. and Deutsche Telekom AG, for Consent to Assign or Transfer Control of Licenses and Authorizations, WT Docket No. 11-65 (filed Apr. 21, 2011).

⁶ See Cecilia Kang, *Leap Wireless opposes AT&T bid to buy T-Mobile*, Washington Post, May 24, 2011, available at http://www.washingtonpost.com/blogs/post-tech/post/leap-wireless-opposes-atandt-bid-to-buy-t-mobile/2011/05/23/AFDSeQAH_blog.html (if AT&T's takeover of T-Mobile is approved, "about 90 percent of pre-tax earnings for the wireless industry would go to AT&T and Verizon Wireless"); see also, DISH Network LLC, Petition to Deny, Applications of AT&T Inc. and Deutsche Telekom AG, For Consent to Assign or Transfer Control of Licenses and Authorizations, WT Docket No. 11-65, at 4 (filed May 31, 2011) ("DISH Petition to Deny AT&T-T-Mobile Merger").

⁷ Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services, WT Docket No. 10-133, *Fifteenth Report*, FCC 11-103 ¶ 56 (rel. June 27, 2011) ("*Fifteenth Mobile Competition Report*").

consolidation, however, would raise significant additional barriers. In particular, at 80% market concentration, the top two CMRS providers would be able to hinder DISH's ability to gain subscribers by temporarily subsidizing their rates, withholding critical interconnection and roaming agreements, and otherwise abusing their market power to thwart any potential entrant into the market.⁸ Even for a company like DISH, with its long history of taking on incumbents and bringing competition to new markets, these barriers would be high indeed. Therefore, quick approval of these transactions and related waivers need not justify any less vigilance in the Commission's evaluation of the proposed AT&T/T-Mobile combination.

III. DISH'S UPDATED PLAN

DISH's agreement to purchase TerreStar's assets has quite naturally caused DISH to update its plans. DISH now plans to deploy an MSS/ATC system using the full 40 MHz of S-band spectrum with in-orbit active and spare capacity on DBSD's G-1 and TerreStar's T-1 satellites, subject to grant of DBSD's and TerreStar's modification applications and waiver requests, and using the latest in satellite and terrestrial technologies. These broadband services will be offered over a single, technically integrated network for all satellite and terrestrial traffic. The offerings could consist of mobile, portable, or fixed broadband services individually or a combination thereof. DISH expects that the consumer equipment will include broadband-capable tablet computers, among other devices. Once the network is deployed, consumers will be able to use their devices for high-speed Internet access as well as a myriad of IP-based, over-the-top applications, including video. DISH anticipates offering broadband services both on a stand-alone basis and in a consumer-friendly bundle with its multichannel video services.

⁸ DISH Petition to Deny AT&T-T-Mobile Merger at 9.

As part of its offering, DISH intends to continue supporting TerreStar's GENUS™ handset phone (including, among other things, sales, marketing, technical assistance, and software and network maintenance) unless and until a new satellite/terrestrial hybrid device can be developed and deployed by DISH. Future iterations of the GENUS™ phone (or a successor device) may also feature improved interoperability with DBSD's G-1 satellite – the current GENUS™ already has a level of operability with that satellite.

The combination of DBSD's and TerreStar's spectral resources will allow DISH to deploy its network based on the LTE Advanced standard from the outset for its next generation MSS/ATC operations.⁹ LTE Advanced is the focus of standardization work by vendors and carriers in 3GPP for broadband wireless communications globally, and commercial devices are expected to be generally available by 2014.¹⁰ As proposed, LTE Advanced significantly increases the capacity of wireless networks relative to current LTE systems, with downlink capacity that can meet the growing demand for wireless broadband by using the combination of advanced interference management techniques, heterogeneous networks that optimize system capacity, and the combining of radio carriers to generate higher degrees of spectral efficiency than current LTE systems.

One of the key advantages of LTE Advanced is its support for heterogeneous networks composed of cells of many different sizes and strengths. Such networks are more spectrally efficient than today's homogeneous networks. Heterogeneous networks increase geographic re-use of spectrum in high-traffic, dense user areas through additional use of "pico" and "femto"

⁹ LTE Advanced is the name for LTE Release 10 and beyond. Today's commercially deployed LTE networks generally use LTE Release 8. See Qualcomm August 2011 Presentation of LTE Advance, Slide 6, available at <http://www.qualcomm.com/documents/lte-advanced-global-4g-solution> (last visited Aug. 10, 2011). The S-band is not included in the LTE Release 8 standard.

¹⁰ *Id.*

cells, while still permitting wide coverage in less dense, lower traffic areas using more traditional “macro” cells. Networks incorporating pico and femto cells are expected to become much more efficient with the availability of LTE Advanced commercial devices, and their improved efficiencies will be a key part of increasing network capacity as network designers approach the theoretical limits of how much data can be packed into a single wireless signal. Future releases of LTE Advanced are expected to utilize advanced interference management technology to enable a device to communicate with multiple base stations at the same time. This would allow users to seamlessly transition through these topologically complex wireless networks and therefore facilitate optimal integration with MSS. In short, this innovative technology will allow DISH’s initial deployment to use the most advanced, spectrally efficient technology, and generate significant public interest benefits. Notably, to capture the efficiencies of an LTE Advanced network, network rollout and device availability must go hand in hand.

IV. REQUESTED FLEXIBILITY

A. Waiver Requests and Criteria

To increase its flexibility to fully and efficiently utilize 2 GHz MSS spectrum to provide terrestrial mobile broadband while continuing to provide a robust satellite offering, the Applicants request certain waivers of the ATC rules addressed herein. The Commission may waive its rules for good cause shown, particularly where strict compliance with a rule is inconsistent with the public interest when taking “into account considerations of hardship, equity, or more effective implementation of overall policy,”¹¹ especially when deviation on an individual basis does not require “evisceration of a rule by waivers.”¹² The Commission’s grant

¹¹ 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

¹² *WAIT Radio*, 418 F.2d at 1159.

of these waivers will enable DISH to make commitments regarding its terrestrial mobile broadband network and service deployments.

First, consistent with FCC precedent,¹³ the Applicants request a waiver of the integrated service requirement to allow DBSD and DISH to offer dual-mode terminals to all customers who want them, but make single-mode terrestrial terminals available to customers who do not need or desire the satellite function. Second, the Applicants request a waiver of the spare satellite requirement. And finally, Applicants ask that the Commission clarify that certain measurement techniques are acceptable to confirm compliance with Section 25.252(a)(1) of the Commission's rules.

The Commission should act here on the National Broadband Plan's recommendation that "[t]he FCC should take actions that will optimize licensee flexibility sufficient to increase terrestrial broadband use of MSS spectrum, while preserving market-wide capability to provide unique mission-critical MSS services."¹⁴ Grant of these waiver requests will better serve the public interest and the goals of the Commission's MSS/ATC policy than would strict application of the ATC rules. The Applicants emphasize that they are asking for a waiver of the Commission's rules in the individual circumstances of this case, in light of its plan, the availability of the GENUSTM phone and its future iterations, the unique features of the 2 GHz band and its existing licensees, and DISH's commitment to MSS services. They are not asking for the application of new or different rules for MSS/ATC services.¹⁵

¹³ See LightSquared Subsidiary LLC, Request for Modification of its Authority for an Ancillary Terrestrial Component, *Order and Authorization*, 26 FCC Rcd. 566 (2011).

¹⁴ Federal Communications Commission, Connecting America: The National Broadband Plan, 87 (2010) ("National Broadband Plan").

¹⁵ Compare *WAIT Radio*, 418 F.2d at 1153 (noting that the Commission may grant a waiver of its rules for good cause shown), with *Cities of Anaheim, Riverside, Banning, Colton and Azusa*,

B. “Integrated Service” Requirement

The Applicants request that the Commission waive application of the ATC “integrated service” rule¹⁶ to permit DBSD and DISH to provide dual-mode terminals to customers who want them, and single-mode terrestrial terminals to customers who do not want the satellite function. Allowing DBSD and DISH to provide single-mode terrestrial terminals to customers who have no need for satellite functions will achieve significant public benefits, and will do so by better serving the important, underlying policy. DBSD and DISH are committed to securing the opportunity to deploy a terrestrial broadband network and will provide substantial satellite service – however, relief from the integration requirement is an important component of DISH’s plan.

Because DISH now intends to acquire both DBSD’s and TerreStar’s authorizations, satellites, and facilities, DISH will be able to offer consumers greater choice by continuing to make available the existing dual-mode GENUS™ phone (or a successor device) to customers who want the satellite function, and also make available single-mode devices (terrestrial only) for other customers. Thus, rather than severely restricting consumers’ choice of devices, DISH plans to provide customers with greater choice in devices according to their preferences. Furthermore, DISH will take steps to ensure that customers are aware that both satellite and integrated, satellite-terrestrial service options are available to them.

Today, a mobile voice and data provider’s ability to attract customers depends in large measure on its ability to provide its customers with the types of devices that best suit their needs. In a world of lighter-and-smaller-is-better, consumers prefer lighter weight handsets with longer

California v. FERC, 723 F.2d 656, 659 (9th Cir. 1984) (holding that an agency may not use an adjudication to circumvent the Administrative Procedure Act’s rulemaking procedures, by, for example, amending a rule).

¹⁶ See 47 C.F.R. § 25.149(b)(4).

battery life. In addition, the requirement to make every device dual-mode severely limits a provider's ability to enter into arrangements with multiple device and equipment manufacturers, thereby limiting consumer choice and severely impairing the business case economics.

Such a lack of choice compels consumers to shoulder the associated additional costs, while hampering the service's competitiveness by significantly limiting DISH's ability to attract customers. This does not make sense, particularly against the backdrop of increasing consolidation in the CMRS arena, and does not further the Commission's goal of expanding the use of MSS/ATC service nationwide. To the contrary, it disserves the Commission's well-established policy in favor of efficient use of the spectrum.

Waiver of the integrated service rule in these circumstances will better serve the underlying Commission policy of creating a robust MSS service than would strict adherence to it. As noted above, the flexibility sought will allow DISH to acquire the critical mass of MSS/ATC subscribers necessary to create a viable terrestrial service offering. That mass of subscribers, in turn, will allow DISH to support the integrated network upon which its MSS offering also depends, lessening the per-subscriber cost of maintaining the network. In other words, by helping to ensure the viability of DISH's MSS/ATC service through the provision of flexibility, the Commission will also help ensure a viable and substantial MSS service.

Finally, as detailed below, if it is awarded the flexibility requested in this Application, DISH is also prepared to commit to other significant measures to ensure that the purpose of the integrated service requirement will be met. Among other things, DISH can commit to ensuring a sufficient amount of satellite capacity to support a nationwide MSS service. In addition, DISH can commit to a realistic terrestrial mobile broadband network buildout schedule that would provide MSS/ATC service to millions of Americans, and that would be consistent with FCC

precedent and based upon buildout principles established in the Sprint/Nextel and Sprint/Clearwire transaction decisions.¹⁷ Furthermore, the network will be technically integrated, with all network traffic, whether terrestrial or satellite, being processed and handled by the same integrated network and support systems.

In the National Broadband Plan, the Commission rightly observed that its gating criteria had “made it difficult for MSS providers to deploy ancillary terrestrial networks.”¹⁸ This militates for flexible application of the integrated service requirement and favorable consideration of this waiver request subject to the safeguards described above.

C. Spare Satellite Requirement

As DISH and TerreStar have done in their assignment application, the Applicants also request a waiver of the Commission’s spare satellite “gating” requirement.¹⁹ Under that rule, an MSS/ATC operator must have a spare satellite available on the ground within one year after commencing ATC operations and launch that satellite in the first commercially reasonable launch window following the failure of an MSS satellite.²⁰ The Commission adopted the spare satellite rule “to ensure that there would be redundancy of satellite service, while at the same time, retaining ATC operations as an ‘ancillary’ service in the event of launch failures or satellite malfunctions.”²¹

¹⁷ Nextel Commc’ns, Inc., and Sprint Corp., *Memorandum Opinion and Order*, 20 FCC Rcd. 13967 (2005) (“*Sprint-Nextel Order*”); Sprint Nextel Corp. and Clearwire Corp., *Memorandum Opinion and Order*, 23 FCC Rcd. 17570 (2008) (“*Sprint-Clearwire Order*”).

¹⁸ National Broadband Plan at 88.

¹⁹ 47 C.F.R. § 25.149(b)(2).

²⁰ *Id.*

²¹ Mobile Satellite Ventures Subsidiary LLC, Application for Limited Waiver of On-Ground Spare Satellite Rule, *Memorandum Opinion and Order*, 22 FCC Rcd. 20548, 20549 ¶ 4 (2007) (“*MSV Waiver Order*”).

A waiver of the spare satellite requirement in this case will not undermine the purpose of the rule. That purpose is to ensure that MSS operators continue investment and innovation in their satellite systems, and that they move quickly to restore service following a satellite failure.²² The highest risk of such failure occurs during the first year after launch, which covers the risk areas of launch, deployment, and early life failures. DBSD's G-1 satellite has passed that risk period, meets its specifications, remains in good health, and is expected to provide uninterrupted service for the rest of its full design life of 15 years. In fact, DBSD's G-1 satellite has enough propellant on board to last many years beyond the specified life. As a result, the need to launch a replacement satellite before the satellite's end of life is already only a remote possibility. Moreover, given the significant capacity available as a result of potential interoperabilities between DBSD's G-1 and TerreStar's T-1 satellites, it is likely that any capacity shifting or redeployment that might be needed for business concerns could be accommodated with limited additional support.

As noted above, DISH plans to deploy an MSS/ATC system using the full 40 MHz of S-band spectrum with in-orbit active and spare capacity on DBSD's G-1 satellite (currently positioned at 92.85° W.L.) and TerreStar's T-1 satellite (currently positioned at 111° W.L.). As a result, post-transaction, DISH will have two state-of-the-art satellites in orbit and capable of providing MSS in the S-band over all 50 states, Puerto Rico, and the U.S. Virgin Islands.

On the other hand, requiring DISH to complete and earmark two satellites as spares – one for each of DBSD's and TerreStar's authorizations – would be to require expenditure of over half a billion dollars and would serve no discernible policy. Worse, strict compliance with the

²² Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands, *Report and Order and Notice of Proposed Rulemaking*, 18 FCC Rcd. 1962, 2006 ¶ 81 (2003).

spare satellite requirement would only serve to divert DISH's resources away from developing its hybrid MSS/ATC network. This is an unnecessary and unreasonable expense that would jeopardize the business case for entering the market in the first place. In particular, it would not increase the reliability of the MSS service to be provided and would, in fact, unnecessarily lengthen any potential service outage. Indeed, as the Commission noted in the *MSV Waiver Order*, launch of a spare satellite may take as long as 18 months,²³ during which time customers would have limited or no service.

This is not a case in which a nascent satellite operator is undertaking its first-ever satellite venture on a shoe-string. Managing a satellite fleet is at the core of DISH's business. DISH has a long history of building, launching, and operating satellites. DISH currently ensures continued operations of a satellite system relied upon by approximately 14 million households in a market where interruptions of service can be fatal to customer satisfaction. DISH has consistently done so without being subject to a ground spare requirement. This request amounts to no more than allowing DISH the flexibility to do with its MSS satellites what it does on a daily basis with its DBS satellites.

The Commission waived the spare satellite rule in the *MSV Waiver Order* based on a showing that each of the two operational L-band satellites would provide sufficient backup capacity for the other.²⁴ The Commission concluded that a waiver in that case "will strike an appropriate balance between ensuring continuity of satellite service to customers and minimizing cost burdens on the satellite operator."²⁵ A waiver in the present circumstances is equally

²³ *MSV Waiver Order*, 22 FCC Rcd. at 20550 ¶ 8.

²⁴ *Id.* at 20550-51 ¶¶ 8, 12.

²⁵ *Id.* at 20551 ¶ 12.

justified, as strict compliance with the rule would not serve the public interest, and the requested waiver more effectively implements the Commission's overall policy.

D. Request for Clarification of Section 25.252(a)(1) of the Commission's Rules

Although the Commission has adopted an OOB limit for ATC base stations under Section 25.252(a)(1), the measurement technique to be used to measure compliance with the rule is not specifically enumerated. The Applicants intend to demonstrate conformance with the base station limit using the same emission measurement technique that the Commission has previously approved to measure compliance with the equivalent requirements for handsets in the band.²⁶ The Applicants request that the Commission clarify that this measurement procedure is acceptable. TerreStar and DISH, in their application filed today, request the same clarification.

E. DISH's Commitments if Flexibility Is Granted

1. Buildout Commitments

In addition to its commitment to provide nationwide MSS service, if the above requested flexibility is granted, DISH will also make certain substantial terrestrial network deployment commitments intended to increase wireless broadband competition, including in rural areas. Specifically, at the commencement of its terrestrial wireless operations, DISH plans to deploy

²⁶ ICO Satellite Service G.P., Application for Blanket Authority to Operate Ancillary Terrestrial Component Base Stations and Dual-Mode MSS-ATC Mobile Terminals in the 2 GHz MSS Bands, *Order and Authorization*, 24 FCC Rcd. 171, 195 ¶ 64 (2009). Compliance of the 43+ 10 log P rule will be based on use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e., 1 megahertz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

the most advanced wireless broadband service using the LTE Advanced standard. The requested flexibility is, in fact, critical to DISH's ability to obtain base station equipment and handsets. Chipset and other manufacturers might not be willing to develop and supply devices for ATC service in the S-band without certainty that DISH has obtained the necessary regulatory approvals to proceed with its plan.

Based on the projected availability of the LTE Advanced standard and related technology, and assuming that DISH obtains all of the flexibility requested in this Application, DISH is prepared to work with the Commission to develop a reasonable, attainable buildout schedule keyed to commercial availability of the LTE Advanced standard. DISH is committed to developing a buildout schedule consistent with FCC precedent and based on the buildout principles established in the Sprint/Nextel and Sprint/Clearwire transaction decisions.²⁷

2. Integrated Network, Sufficient Satellite Capacity

Additionally, and also contingent upon the grant of the requested flexibility, DISH commits to creating a "technically" integrated network in which all network traffic, whether terrestrial or satellite, is processed and handled by the same integrated network and support systems. Moreover, to ensure a continuing robust MSS service, DISH will ensure sufficient satellite capacity is available to support a viable nationwide MSS offering.

V. CONSOLIDATION WITH DBSD'S APPLICATION FOR MODIFICATION OF ATC AUTHORITY

The Applicants have filed a contemporaneous request to modify DBSD's ATC authorization, to the extent necessary, in conformity with any grant of the waivers requested herein. The public interest justifies these modifications for the same reasons that were discussed

²⁷ *Sprint-Nextel Order*, 20 FCC Rcd. 13967; *Sprint-Clearwire Order*, 23 FCC Rcd. 17617.

above in connection with the waiver request.²⁸ Applicants request that the Commission consider and act on the modification request and this Application jointly and concurrently.

VI. CONSOLIDATION WITH TERRESTAR'S TRANSFER AND MODIFICATION APPLICATIONS

The Applicants request that the Commission consolidate its review of this Application with the DISH-TerreStar Application, as well as with the modification application being filed today by DISH and TerreStar. Consolidated review of these applications will minimize the burden on both the Commission and the Applicants, and provide the Commission with the benefit of a more complete record and context. Indeed, the original Application, filed months before the DISH-TerreStar Application, discussed the competitive effects and benefits of that transaction with reference to DISH's interest in both DBSD and TerreStar. An evaluation of the benefits of the transaction requires precisely this "holistic" view.

VII. CONCLUSION

The Applicants respectfully request that the Commission grant the Application promptly and provide for any other authority that the Commission finds necessary or appropriate to enable the Applicants to consummate the proposed transaction.

²⁸ See discussion, *supra*, Part IV.

Respectfully submitted,

/s/

Peter A. Corea
Vice President, Regulatory Affairs
DBSD North America, Inc., Debtor-in-Possession and New DBSD Satellite Services G.P., Debtor-in-Possession
11700 Plaza America Dr., Suite 1010
Reston, VA 20190
(703) 964-1400

Timothy M. Dozois
Acting General Counsel
Pendrell Corporation
2300 Carillon Point
Kirkland, WA 98033

R. Stanton Dodge
Executive Vice President, General Counsel,
Secretary and Director
DISH Network Corporation
100 Inverness Terrace East
Englewood, CO 80112
(303) 706-4000

Jeffrey H. Blum
Senior Vice President and
Deputy General Counsel
Alison A. Minea
Corporate Counsel
DISH Network Corporation
1110 Vermont Avenue, NW, Suite 750
Washington, DC 20005
(202) 293-0981

Pantelis Michalopoulos
Christopher Bjornson
Andrew W. Guhr
Steptoe & Johnson LLP
1330 Connecticut Avenue, NW
Washington, DC 20036
(202) 429-3000
Counsel for DISH Network Corporation

Dated: August 22, 2011

ATTACHMENT 1

RESPONSE TO FCC FORM 312, QUESTION 36

This attachment provides details as to any “FCC station authorization or license revoked or . . . any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission,” as requested by FCC Form 312, Question 36, for DISH Network Corporation (with its affiliates DISH Operating L.L.C. (f/k/a EchoStar Satellite Operating L.L.C.) and Gamma Acquisition L.L.C., “DISH”).

In a *Memorandum Opinion and Order* released May 16, 2002, the Satellite Division of the International Bureau cancelled two conditional construction permits held by affiliates of the applicant DISH for 22 channels at the 175° W.L. orbital location.¹

By an *Order* released July 1, 2002, the International Bureau cancelled DISH’s license for a Ka-band satellite system and dismissed a related modification application filed by DISH.² On November 8, 2002, the International Bureau reinstated DISH’s license for a Ka-band system as well as the related modification application.³

In a *Memorandum Opinion and Order* released April 29, 2004, the International Bureau denied, in part, four applications filed by DISH to operate GSO FSS satellites using the Ka and/or Extended Ku-bands at the 83° W.L., 105° W.L., 113° W.L., and 121° W.L. orbital locations.⁴ DISH’s petition for reconsideration of this decision was denied.⁵

In a *Memorandum Opinion and Order* released August 3, 2004, the International Bureau declared null and void the space station authorization held by VisionStar, a DISH affiliate, for use of the Ka-band at the 113° W.L. orbital location.⁶

¹ See EchoStar Satellite Corporation, Directsat Corporation, Direct Broadcasting Satellite Corporation, Consolidated Request for Additional Time to Commence Operation, *Memorandum Opinion and Order*, DA 02-1164 (rel. May 16, 2002).

² See EchoStar Satellite Corporation, Application for Authority to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service, *Memorandum Opinion and Order*, DA 02-1534 (rel. July 1, 2002).

³ See EchoStar Satellite Corporation, Application for Authority to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service, *Memorandum Opinion and Order*, DA 02-3085 (rel. Nov. 8, 2002).

⁴ See EchoStar Satellite LLC, Applications for Authority to Construct, Launch, and Operate Geostationary Satellites in the Fixed-Satellite Service Using the Ka and/or Extended Ku Bands at the 83° W.L., 105° W.L., 113° W.L., and 121° W.L. orbital locations, *Memorandum Opinion and Order*, DA 04-1167 (rel. Apr. 29, 2004).

⁵ See EchoStar Satellite LLC, Petition for Reconsideration, Applications for Authority to Construct, Launch, and Operate Geostationary Satellites in the Fixed-Satellite Service Using the Ka and/or Extended Ku Bands at the 83° W.L., 105° W.L., 113° W.L., and 121° W.L. orbital locations, *Memorandum Opinion and Order*, DA 06-865 (rel. Apr. 14, 2006).

⁶ See VisionStar, Inc., Application for Modification of Authority to Construct, Launch and Operate a Ka-Band Satellite System in the Fixed Satellite Service, *Memorandum Opinion and Order*, DA 04-2449 (rel. Aug. 3, 2004).

By letter dated May 19, 2005, the Satellite Division of the International Bureau denied DISH's applications for a Fleet Management Modification and for a Special Temporary Authority to move the EchoStar 4 satellite to 61.5° W.L., pending the Commission's consideration of another DISH request to move the satellite to 77° W.L., on the grounds that the purpose of the proposed fleet management modification was not consistent with the purposes of the Commission's rules and that there were no extraordinary circumstances for the grant of temporary authority.⁷

In a *Memorandum Opinion and Order* released June 3, 2005, the International Bureau denied DISH's application for a Special Temporary Authority to move the EchoStar 4 satellite to 77° W.L. on the grounds that DISH had failed to establish extraordinary circumstances for the grant of such authority.⁸ However, the International Bureau later granted partial reconsideration of this order and then granted DISH's request to move the satellite to 77° W.L. where it would operate pursuant to Mexican authority.⁹

⁷ See Letter from Thomas S. Tycz, Chief, Satellite Division, International Bureau, FCC to Pantelis Michalopoulos, Counsel to EchoStar Satellite L.L.C., DA 05-1405 (May 19, 2005).

⁸ See EchoStar Satellite L.L.C., Application for Special Temporary Authority to Conduct Telemetry, Tracking and Command Operations During the Relocation of EchoStar 4 to the 77° W.L. Orbital Location, *Memorandum Opinion and Order*, DA 05-1581 (rel. Jun. 3, 2005).

⁹ See EchoStar Satellite L.L.C., Application for Special Temporary Authority to Conduct Telemetry, Tracking and Command Operations During the Relocation of EchoStar 4 to the 77° W.L. Orbital Location, *Order on Reconsideration*, DA 05-2067 (rel. Jul. 25, 2005); EchoStar Satellite L.L.C., Application for Special Temporary Authority to Conduct Telemetry, Tracking and Command Operations During the Relocation of EchoStar 4 to the 77° W.L. Orbital Location, *Order and Authorization*, DA 06-868 (rel. Apr. 18, 2006).

ATTACHMENT 2

RESPONSE TO FCC FORM 312, QUESTION 40, AND SCHEDULE A, QUESTION A20

This attachment provides details as to the ownership and corporate structure of Gamma Acquisition L.L.C. ("Gamma") and its parent, DISH Network Corporation ("DISH").

OWNERSHIP OF DISH AND GAMMA

Gamma is a direct wholly owned subsidiary of DISH. DISH is a publicly traded Nevada corporation. The stockholders owning of record and/or voting 10 percent or more of the voting stock of DISH include:

Ownership Interest	Citizenship	Approx. Equity Interest ¹	Approx. Voting Interest ¹
Charles W. Ergen ² Chairman DISH Network Corporation 9601 South Meridian Blvd. Englewood, CO 80112	USA	53.3%	90.4%
The Goldman Sachs Group, Inc. ³ 200 West Street New York, NY 10282	USA	10.5%	0.85%

¹ As of July 15, 2011.

² Includes both Class A common stock and Class B common stock ownership. Class B common stock is owned through several trusts. Mr. Ergen is deemed to own beneficially all of the Class A Shares owned by his spouse, Cantey M. Ergen. Mr. Ergen's beneficial ownership includes: (i) 478,302 Class A Shares; (ii) 19,026 Class A Shares held in the Corporation's 401(k) Employee Savings Plan (the "401(k) Plan"); (iii) the right to acquire 1,415,000 Class A Shares within 60 days upon the exercise of employee stock options; (iv) 235 Class A Shares held by Mr. Ergen's spouse; (v) 1,466 Class A Shares held in the 401(k) Plan by Mrs. Ergen; (vi) 20,130 Class A Shares held as custodian for Mr. Ergen's children; (vii) 27,000 Class A Shares held by a charitable foundation for which Mr. Ergen is an officer and (viii) 234,190,057 Class A Shares issuable upon conversion of Mr. Ergen's Class B Shares. Mr. Ergen has sole voting and dispositive power with respect to 149,183,340 shares. Mr. Ergen's beneficial ownership of Class A Shares excludes 4,245,151 Class A Shares issuable upon conversion of Class B Shares held by certain trusts established by Mr. Ergen for the benefit of his family.

³ According to the Form 13F filed by The Goldman Sachs Group, Inc. (along with its affiliates, "Goldman") with the SEC on August 15, 2011, Goldman held in aggregate 21,821,878 Class A Shares as of June 30, 2011 (the 13F reporting date).

CORPORATE OFFICERS AND DIRECTORS⁴

DISH Network Corporation

Executive Officers:

Joseph P. Clayton	President and Chief Executive Officer
Thomas A. Cullen	Executive Vice President, Corporate Development
Bernard L. Han	Executive Vice President and Chief Operating Officer
Robert E. Olson	Executive Vice President and Chief Financial Officer
R. Stanton Dodge	Executive Vice President, General Counsel and Secretary
W. Erik Carlson	Executive Vice President, DNS and Service Operations
James DeFranco	Executive Vice President and Special Advisor to CEO
Michael Kelly	President, Blockbuster L.L.C.
Roger Lynch	Executive Vice President, Advanced Technologies
Stephen Wood	Executive Vice President, Human Resources

Board of Directors:

Charles W. Ergen	Chairman
Joseph P. Clayton	
Carl E. Vogel	
James DeFranco	
David K. Moskowitz	
Cantey M. Ergen	
Steven R. Goodbarn	
Gary S. Howard	
Tom A. Ortolf	

Gamma Acquisition L.L.C.

Executive Officers:

Charles W. Ergen	Chairman
R. Stanton Dodge	Executive Vice President and General Counsel
James DeFranco	Executive Vice President

⁴The address for all officers and directors of DISH Network Corporation and DISH Operating L.L.C. is 9601 South Meridian Blvd., Englewood, CO 80112.