Chase White, CFA (202)629-0006 cwhite@heightllc.com

Hunter Hammond (202) 629-0038 hhammond@heightllc.com



Dish Network

DISH is Gambling on DE Agreements, but FCC Holds All the Cards

THE TAKEAWAY

In this report, we analyze the likely outcomes of the years-long dispute between Dish Network Corp. (DISH) and the FCC regarding a basket of licenses important to two companies in the DISH family – Northstar Wireless (Northstar) and SNR Wireless LicenseCo (SNR), which DISH used as Designated Entities (DE) in Auction 97. As investors close to this issue know, the DISH/Northstar/SNR group recently amended their relationships in hopes of regaining a 25% discount (worth roughly \$2.5B) on the licenses they previously purchased in Auction 97. Not only do we think this is unlikely but also we think the best-case scenario for DISH would be for the company to owe no additional payments to the FCC above and beyond what it previously paid related to Auction 97. A worst-case scenario, in our view, would be for DISH/Northstar/SNR to ultimately owe the FCC additional penalties up to \$2.6 billion. Note that neither case would see the FCC granting DISH/Northstar/SNR ownership of a number of spectrum licenses on which the companies defaulted as part of this dispute. The final outcome between best- and worstcase is dependent on a subsequent auction of that basket of defaulted licenses. The next date to watch in this process comes on October 22, by which time DISH/Northstar/SNR group may reply formally to the FCC and competitor comments related to the dispute, and the companies may suggest further changes to their interlinked business structures.

Chase White, CFA (202)629-0006 cwhite@heightllc.com

Hunter Hammond (202) 629-0038 hhammond@heightllc.com



Introduction

As we write above, we do not think it is likely that DISH/Northstar/SNR will win a monetary award from the FCC, nor do we think these companies will be granted ownership of a number of spectrum licenses that they defaulted on as part of this dispute. We think any belief among investors that either of these outcomes is likely stems from a series of misunderstandings of the process and political environment, including: 1) a misunderstanding of the rules of the auction in dispute (Auction 97) that gives the FCC plenty of cover to require DISH to owe the Commission more, not less, monetary compensation than the companies have already paid; 2) a misunderstanding of the negative political environment at the FCC regarding DISH/Northstar/SNR that will likely steer Commissioners to act against and not in favor of the companies; and 3) a misunderstanding of the factors and relevant comments the FCC will consider when ultimately determining if the cure is adequate.

Northstar Wireless (Northstar) and SNR Wireless LicenseCo (SNR) claimed small business bidding credits as designated entities in Auction 97, which commenced on November 13, 2014 and concluded on January 29, 2015. Of the 1,611 licenses auctioned in Auction 97, Northstar and SNR won 702 (Figure 1). The small business credits afforded Northstar and SNR the ability to discount gross winning bids by 25% (\$3.3 billion); however, after the auction, the FCC found that DISH had de facto control of Northstar and SNR. The FCC demanded that the companies pay full price for the licenses they had won (\$13.3 billion). Instead, the companies selectively defaulted on 197 licenses, paid full price for the retained licenses, and appealed to the DC Circuit Court. The court mandated that the FCC give Northstar and SNR the opportunity to cure their agreements with DISH.

There has been some confusion over what a successful cure would mean for Northstar and SNR, what penalties (sometimes referred to as fines) would be owed or returned, and whether licenses could be returned to the companies. At best, we think a successful cure would allow Northstar and SNR to discount 25% of the gross payment made for the licenses they chose to retain. This discount would be worth \$2.5 billion (Figure 1).

Figure 1. Retained and Defaulted Licenses, Payments, Penalties, and Discounts (Dollars in Millions)

	Northstar	SNR	Total
Licenses	345	357	702
Defaulted	84	113	197
Retained	261	244	505
Original Gross Payment	\$7,845	\$5,482	\$13,327
Less 25% Discount	\$1,961	\$1,371	\$3,332
Net Payment	\$5,884	\$4,112	\$9,996
Gross Payment on Retained Licenses	\$5,619	\$4,271	\$9,890
Gross Value of Defaulted Licenses	\$2,226	\$1,211	\$3,437
15% Penalty on Defaulted Licenses	\$334	\$182	\$516
Potential 25% Discount on Retained	\$1,405	\$1,068	\$2,473

Source: FCC, Northstar, SNR, Height Capital Markets analysis

Chase White, CFA (202)629-0006 cwhite@heightllc.com

Hunter Hammond (202) 629-0038 hhammond@heightllc.com



Cure Adequacy

On June 8, Northstar and SNR amended their agreements to address approximately 20 clauses and arrangements with which the FCC originally took issue. One of the primary changes was conversion of the majority of debt that DISH held into non-voting preferred equity. However, opponents of the amendments argued that the complex amendments will still implicitly trigger a transfer of licenses after five years, the minimum amount of time a designated entity must hold licenses before transfer.

We believe the FCC will not find the cure adequate, and the Commission's decision will be influenced by two factors.

Political Environment

The FCC's decision is more art than science. Both the DC Circuit Court and the FCC acknowledge that the determination of de facto control is based on the totality of the circumstances. While the companies specifically addressed certain clauses and arrangements in the Northstar and SNR agreements, the FCC noted in its 2015 MO&O that simply including language that implies superficial separation would not necessarily sway the FCC. Moreover, the FCC noted that there is no "bright line test of what constitutes de facto control." Thus, the Commission is not bound to approve the cures based on equations that Northstar and SNR could solve.

Chairman Pai and Commissioner O'Rielly oppose the abuse of the designated entities program. Both Pai and O'Rielly have been outspoken on the issue of abuse in the designated entities program. After the 2015 MO&O was released, both commissioners at the time stated their strong opposition to DISH's agreements with Northstar and SNR and the impact such abuse has on other small businesses like VTel. Moreover, Chairman Pai used VTel as an example of a company the FCC intends to support with its policies at an August 2018 oversight hearing. Finally, when the Northstar/SNR issue went to the DC Circuit, the FCC argued that allowing a cure would create a moral hazard problem. In this instance, as opposed to other issues before the FCC, the transition from the Obama administration to the Trump administration does not reflect a regulatory environment that favors DISH.

Northstar and SNR have become entangled with DISH's construction deadline issue before the FCC. DISH recently missed important construction deadlines for its deployment of a 5G network. In response, DISH explained that it intends to implement a narrowband Internet of Things (NB-IoT) network. The company was subsequently criticized by Wireless Telecom Bureau Chief Donald Stockdale for leaving nearly 53 megahertz of spectrum fallow, according to our reading. Meanwhile, DISH stated that it was in negotiations with Northstar and SNR to enable commercial deployment of spectrum owned by the two companies for its NB-IoT network. As the FCC moves to free up spectrum rapidly, Northstar and SNR's involvement in this scuffle could potentially reduce their political capital.

Opposition Comments

Arrangement details could scuttle a cure. Beyond the subjective nature of review, T-Mobile (**TMUS**) and VTel opposed the amended arrangements on specific grounds. We believe the two companies make strong arguments that the FCC could use in their rejection of a cure. Specific arrangements could demonstrate that DISH still has de facto control in a broad sense. Importantly, VTel notes that "Northstar's and SNR's liability to DISH under the preferred stock plan will actually be greater than the amount of indebtedness either entity would

Chase White, CFA (202)629-0006 cwhite@heightllc.com

Hunter Hammond (202) 629-0038 hhammond@heightllc.com



have incurred under the original credit agreements with DISH." T-Mobile addressed the most salient issues, including management control, debt retirement, and the put rights that remained in the amended agreements. Both filings direct the FCC to specific arrangements that could potentially scuttle any cure.

The danger of a five-year put option was noted in the 2015 MO&O. The FCC explained that any agreement that is designed to force a sale by a designated entity through financial means constitutes a transfer of control. The analysis conducted by VTel and T-Mobile suggests just that.

Defaulted Licenses

In its amendment, Northstar requested that the FCC grant back the licenses on which it originally defaulted; however, SNR made no such request. AT&T (T) opposed granting licenses back on the grounds that the FCC established clear rules for defaulters before Auction 97 and that granting the licenses was beyond the scope of the DC Circuit Court's mandate. We believe the FCC will not grant the defaulted licenses back to Northstar and SNR even if the Commission finds the updated agreements acceptable.

Before bidding in Auction 97, Northstar and SNR knew the consequence of defaulting, yet they chose to default regardless. The primary argument the two companies could make is that by finding they were not deserving of the small business discount, the FCC forced their hand and required a default. In fact, the companies made a similar argument in an appeal before the U.S. Supreme Court. Specifically, the companies argued that the Circuit Court erred by not acknowledging that the FCC should have given them an opportunity to cure in 2015. The Supreme Court denied their petition. Without a retroactive cure, the companies are left negotiating agreements in the present – where they have already defaulted. Moreover, DISH acknowledged in their latest earnings filing that they intend to participate in any re-auction of the AWS-3 licenses.

If the FCC does not grant the defaulted licenses back, Northstar and SNR will be subject to default payments. The rules established in Auction 97 require defaulters (in this case SNR and Northstar) to make two payments:

- 1. Deficiency payment: The deficiency payment is equal to the difference between the original Auction 97 winning bid and the winning bid at a subsequent auction (applicable only if the subsequent winning bid is less than the original bid).
- 2. Additional payment: The additional payment is equal to 15% of the "defaulter's bid or of the subsequent winning bid, whichever is less."

Northstar and SNR have already made interim additional payments of \$515 million (Figure 1). This payment represents the absolute minimum the companies could be held responsible for in subsequent auctions. While the \$515 million has been reported as a fine, it is a fine for defaulting on licenses and not for violating small business qualification conditions.

The final payment will be dependent on the subsequent auction. As the total cost of licenses sold declines relative to the original auction, Northstar and SNR's payments increase (Figure 2).

Chase White, CFA (202)629-0006 cwhite@heightllc.com

Hunter Hammond (202) 629-0038 hhammond@heightllc.com



Figure 2. Post-Subsequent Auction Penalties Above Interim Payments (Dollars in Millions)

Subsequent Auction			
(Percent of Original)	Northstar Payment	SNR Payment	Total Payment
100%	\$0	\$0	\$0
90%	\$189	\$103	\$292
80%	\$378	\$206	\$584
70%	\$568	\$309	\$876
60%	\$757	\$412	\$1,169
50%	\$946	\$515	\$1,461
40%	\$1,135	\$618	\$1,753
30%	\$1,325	\$720	\$2,045
20%	\$1,514	\$823	\$2,337
10%	\$1,703	\$926	\$2,629

Source: FCC, Height Capital Markets analysis

Background

Original Bids, Discounts, and Defaults

The FCC successfully auctioned 1,611 licenses in Auction 97, which commenced on November 13, 2014 and concluded on January 29, 2015. Of the 1,611 licenses, Northstar won 345 and SNR won 357 with gross cumulative bids of \$7.8 billion and \$5.4 billion, respectively. Northstar and SNR both asserted that their gross revenues were small enough to qualify as "very small businesses", which afforded them a 25% discount on gross winning bids. As such, Northstar and SNR received discounts of \$1.9 billion and \$1.3 billion, respectively. Upon inspection by the FCC, the Commission determined in a Memorandum Opinion and Order (MO&O) that DISH exerted de facto control over Northstar and SNR, thus depriving the two companies of their small business status. In turn, the FCC requested that Northstar and SNR make payments equal to the discount they originally received in order to retain all licenses.

Instead of making the requisite payments to retain all licenses won in the original auction, Northstar and SNR applied their *net* payments of \$5.8 billion and \$4.1 billion, respectively. Northstar retained 261 licenses for the price it originally paid for all 345, selectively defaulting on 84 licenses. SNR retained 244 of its original 357, selectively defaulting on 113 licenses. Defaulting on winning bids subjected Northstar and SNR to default rules.

The FCC established specific default and disqualification rules in the original Auction 97 Public Notice and Filing Requirements. The rules established in Auction 97 require defaulters (in this case SNR and Northstar) to make two payments:

1. Deficiency payment: The deficiency payment is equal to the difference between the original Auction 97 winning bid and the winning bid at a subsequent auction (applicable only if the subsequent winning bid is less than the original bid).

Chase White, CFA (202)629-0006 cwhite@heightllc.com

Hunter Hammond (202) 629-0038 hhammond@heightllc.com



2. Additional payment: The additional payment is equal to 15% of the "defaulter's bid or of the subsequent winning bid, whichever is less."

On October 1, 2015, Northstar and SNR made interim payments equal to 15% of the winning bids for the licenses on which they had selectively defaulted (\$334 million and \$182 million, respectively). The interim payments act as a placeholder until the re-auction of defaulted licenses is held and total default payments are calculated. The combined \$515 million in interim payments has been reported as a fine; however, as far as default payments are a fine, they are a fine for defaulting on licenses (as the name suggests) and not for violating small business qualification conditions. Indeed, DISH could have elected to pay full price for the licenses, retained them, and then litigated the matter to receive the discount on all licenses as it was originally applied.

Litigation

Four separate legal proceedings resulted from Northstar, SNR, and DISH's actions in Auction 97.

First, Vermont National Telephone Company filed a complaint in May 2015 through its subsidiary VTel Wireless before the U.S. District Court for the District of Columbia. The complaint alleges that the behavior of Northstar, SNR, and DISH violated the Federal Civil False Claims Act (FCA). The 1863 FCA allows individuals to file suit on behalf of the government to help recover (1) up to three times the damages sustained by the government and (2) a civil penalty between \$5,500 and \$11,000 for each violation of the law. VTel thus seeks to recover roughly \$9.9 billion in damages (three times the original \$3.3 billion in discounts). If VTel is successful, the court could award them between 15% and 25% of the proceeds recovered on behalf of the government (between \$1.4 billion and \$2.4 billion). The court continues to stay the matter while the FCC reviews Northstar and SNR's updated agreements with DISH. The next status report is due October 10 if the FCC proceedings are not resolved.

Second, following the FCC's August 2015 Memorandum Order and Opinion establishing that Northstar and SNR were not eligible for the small business discount, the companies filed suit in the U.S. Court of Appeals for the DC Circuit. The companies alleged that the Commission departed from precedent and did not provide fair notice or an opportunity to cure their relationship with DISH. The FCC argued, among other things, that allowing Northstar and SNR to seek a cure would create a moral hazard problem, whereby large businesses would abuse the small business discount with no fear of consequence other than an opportunity to fix their relationship with smaller entities.

On August 29, 2017, the DC Circuit Court issued a mandate requiring that the FCC give Northstar and SNR an opportunity to "to renegotiate their agreements with DISH" to comply with small business qualifications. This opportunity is referred to as a "cure" in court documents and subsequent filings. While the court mandated a cure process, the court also found that the FCC correctly applied its precedent in finding that Northstar and SNR were ineligible for small business credits.

Third, in January 2018 Northstar and SNR appealed the DC Circuit Court's decision to the U.S. Supreme Court. The companies asked the Supreme Court to review the fair notice standard applied by the FCC when it found that Northstar and SNR were not eligible for the small business discount. The petition for a writ of certiorari was eventually denied by the Supreme Court on June 25, 2018; however, the last paragraph of the petition reveals the appeal's intent:

Chase White, CFA (202)629-0006 cwhite@heightllc.com

Hunter Hammond (202) 629-0038 hhammond@heightllc.com



As a separate matter, the D.C. Circuit also remanded so that the FCC could provide Petitioners an opportunity to change their agreements to eliminate the purported transfer of control to DISH. But Petitioners were entitled to rely on the rules as they were applied at the time of Auction 97 and they did rely upon them, structuring hugely complex agreements accordingly. These settled expectations have now been scuttled, and whether a mutually advantageous amendment is possible remains to be seen.

Fourth, on August 2, 2018, Northstar and SNR filed a petition for review before the DC Circuit Court. Northstar and SNR argue that the FCC's MO&O did not comply with the same court's 2017 mandate that the FCC afford Northstar, SNR, and DISH an opportunity to cure their respective agreements. Northstar and SNR have until September 6 to submit various documents requested by the court. The FCC has until September 21 to submit various documents.

Current Pleadings

After four letters from Northstar and SNR requesting that the FCC begin proceedings pursuant to the DC Circuit's August 2017 mandate, the FCC issued an Order on Remand. The order established timelines for Northstar and SNR to renegotiate their agreements with DISH in an effort to cure; however, Northstar and SNR objected to the Order on Remand in a joint application for review (AFR). The companies requested an "iterative, responsive cure negotiation process" and advocated for the removal of a majority of parties, including T-Mobile, from the proceeding. Additionally, the AFR requested that the FCC restrict VTel's participation so the company could not "abuse its position as a Party of Record to bolster its external litigation efforts."

Following the AFR, Northstar and SNR attempted to schedule a meeting with each of the commissioners. Of the five commissioners at the time, only Commissioner Clyburn accepted. Instead of meeting, the FCC released a Memorandum Order and Opinion (MO&O). The MO&O established the commission's view that Northstar and SNR did not have a right to an interactive cure process. Additionally, the MO&O lamented the almost "200 licenses for which Applicants placed winning bids [that] remain in limbo even though Auction 97 concluded over three years ago."

Northstar and SNR amended their agreements with DISH on June 8, 2018. The amended agreements specifically modified approximately 20 aspects of the original agreements to ameliorate concerns the FCC expressed in 2015. Among these specific changed were termination of service and trademark agreements; reduction of interest rates on loans; additional put windows; clarification of management fees; elimination of equipment financing restrictions; replacement of investor protection rights; and, most importantly, conversion of a majority of debt to "non-voting, non-convertible, nonparticipating preferred equity."

VTel, AT&T, T-Mobile, and the NABOB all responded to the amended agreements. VTel, with support from a former Chief Economist for the FCC, argued that the conversion from debt to preferred equity actually increases DISH's de facto control of Northstar and SNR. Moreover, VTel contends that the new agreements continue to incentivize Northstar and SNR to exercise their put options at year five, when spectrum acquired using bidding credits can finally be sold in accordance with FCC rules. Thus, VTel argued that the amended agreements do nothing to address FCC concerns and would not be permittable after review. According to VTel:

In short, while the contractual levers DISH can pull to control Northstar and SNR have changed, DISH's defacto control of these entities remains in full force and effect. Under their prior agreements, Northstar and SNR were handcuffed in a locked cage. Under their modified agreements, DISH has ostensibly removed

Chase White, CFA (202)629-0006 cwhite@heightllc.com

Hunter Hammond (202) 629-0038 hhammond@heightllc.com



the handcuffs, but Northstar and SNR remain caged, and only DISH has the key. Of course, Northstar and SNR have no reason to engineer an escape because they hold a "Get of Jail Free" card - namely, the put right, which they will undoubtedly exercise in year five, selling their licenses to DISH as the parties have intended all along.

T-Mobile argued, from a procedural standpoint, that the FCC should review the amended agreements from the viewpoint that "DISH has already exercised over the DISH DEs." T-Mobile takes particular issue with six components of the amended agreements, arguing that the modifications are no more than window dressing that still gives DISH effective control of the companies.

AT&T's response focused on only one aspect of the proceeding: defaulted licenses. AT&T contends that Northstar and SNR were not forced to default on licenses selectively after the FCC determined that they were not eligible for the small business discount. By doing so, Northstar and SNR relinquished those licenses to the FCC and lost all right to them, according to AT&T. Moreover, Northstar and SNR were notified in the Auction 97 rules and in filings by the FCC after the auction that if they did not pay for the licenses, they would be subject to default rules. Finally, AT&T notes that in filing amended agreements, which exceeded 800 pages in total, Northstar (and not SNR) requested the defaulted licenses back in only one sentence.

The National Association of Black-Owned Broadcasters (NABOB) argued that the FCC should grant the revised agreements and reinstate the small business credits for Northstar and SNR. NABOB contends that the drawn-out process, especially if it results in a loss of bidding credits, will discredit the small business discount policy that helps support minority broadcasters. The Multicultural Media, Telecom and Internet Council (MMTC) supported the NABOB position.

Northstar and SNR requested a 45-day extension to reply to comments and potentially amend agreements. The companies now have until October 22 to reply and amend. It is our understanding that if and only if the companies further amend their agreements, opponents will have 30 days to respond.

FCC Regulatory Atmosphere

Following the 2015 MO&O denying Northstar and SNR's very small business credits, Commissioners Pai and O'Rielly released statements criticizing DISH's abuse of the small business discount. Pai wrote that the MO&O helped maintain the credibility of the program and revealed "nearly 4,000 instances of coordinated bidding." Commissioner Pai's statement also directed readers to two other press releases where he specifically criticized the abuse of small business discounts and the adverse impact it has on true small businesses. O'Rielly also supported the MO&O but did not think it went far enough. He would have preferred that the strategic bidding collusion issue be referred to the Department of Justice to determine if any anti-competitive behavior occurred.

The FCC objected to Northstar and SNR's request to cure before the DC Circuit Court, arguing that "granting an opportunity to cure here could create an incentives problem, or 'moral hazard': There would be little reason for bidders to comply with designated entity rules in the first place if, when ultimately denied bidding credits post-auction, they are entitled to haggle with the Commission." The court responded, "Nothing in our decision requires the FCC to permit a cure. That choice lies with the FCC."

DISH also faces pressure from the FCC regarding its construction deadlines for buildout of its AWS-4, 700 MHz E Block, and H Block licenses. DISH missed interim construction deadlines for its AWS-4 and E Block licenses,

Chase White, CFA (202)629-0006 cwhite@heightllc.com

Hunter Hammond (202) 629-0038 hhammond@heightllc.com



thereby accelerating the deadlines by one year. DISH now has until March 7, 2020 to offer service to 70% of the population of each license. DISH also missed the interim construction deadline for its H Block licenses, thereby accelerating the deadline by two years. DISH has until April 29, 2022 to provide signal coverage and offer service to 75% of each license's service area.

Failure to meet construction deadlines comes at a time when the FCC is focused on quickly deploying spectrum, reducing red tape, and putting fallow spectrum to use. DISH's plan to deploy a narrowband Internet of Things (NB-IoT) network was criticized by Donald Stockdale, Chief of the Wireless Telecommunications Bureau, in July. Because a NB-IoT network requires just 200 KHz of bandwidth, Stockdale inquired about buildout plans for "the 53 megahertz of low- and mid-band spectrum that is *apparently* lying fallow" (emphasis added).

In our opinion, the issues facing Northstar and SNR with regard to their small business credits have bled over to the buildout scuffle before the FCC. Importantly, DISH explained that it was in negotiations with Northstar and SNR to enable commercial deployment of spectrum owned by the two companies for its NB-IoT network. VTel argues that these negotiations further demonstrate the control DISH has over Northstar and SNR.

Chase White, CFA (202)629-0006

cwhite@heightllc.com

Hunter Hammon (202) 629-0038

hhammond@heightllc.com



COMPANIES MENTIONED IN THIS REPORT

DISH Network Corp (DISH), AT&T Inc (T), T-Mobile US Inc (TMUS)

RISKS

The legislative and regulatory agendas are subject to change at the discretion of leadership. Unprecedented economic conditions could instigate unanticipated and/or sweeping shifts in policy. Predicting the future is a hazardous endeavor and economic / market forecasting is an imprecise science. Actual outcomes may differ substantially from our forecasts. The predictions and opinions expressed herein are subject to change at any time.

ANALYST CERTIFICATION

We, Chase White, CFA and Hunter Hammond, certify with respect to each security or issuer covered in this research report that (i) the views expressed in this research report accurately reflect our personal views about those subject securities or issuers and (ii) no part of our compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by us in this research report

DISCLAIMER

This report is intended for the private use of Height Analytics' and Height Securities' clients and prospective clients. Reproduction or editing by any means, in whole or in part, or any other unauthorized use, disclosure or redistribution of the contents without the express written permission of Height Analytics is strictly prohibited. The information contained in this report has been obtained from sources which Height Analytics believes to be reliable; however, Height Analytics does not guarantee the accuracy, completeness or timeliness of any information or analysis contained in the report. Opinions in this report constitute the personal judgment of the analysts and are subject to change without notice. The information in the report is not an offer to purchase or sell any security. The information herein is not intended to a complete analysis of all material facts representing any company discussed herein nor by Itself is this report sufficient upon which to base an investment decision. This report may be distributed by Height Securities, LLC, member FIRMA/SIPC. Height Analytics and Height Securities are affiliates.

Users assume the entire cost and risk of any investment decisions they choose to make. Height Analytics shall not be liable for any loss or damages resulting from the use of the information contained in the report, or for errors of transmission of information, or for any third party claims of any nature. Nothing herein shall constitute a waiver or limitation of any person's rights under relevant federal or state securities laws.