

EchoStar - Financing the 5G Build

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Decision scope: Future pace and funding of EchoStar's facilities-based 5G network and commercial rollout

Case convention: This is an author-created management decision exercise. It does not describe private deliberations or assert that the board formally considered these alternatives. Use only information available by the cutoff. No later transaction, financing, regulatory action or performance outcome is included.

The decision

On August 9, 2024, EchoStar published results for the first half of the year and filed its quarterly report. The company was investing in a nationwide 5G network while using wholesale networks to serve most wireless customers. It had regulatory buildout deadlines less than a year away, a large debt maturity in November and much less cash than it held at year-end. Yet it also said its own network had begun carrying commercial traffic and already covered a substantial share of the U.S. population.

EchoStar's senior leadership must decide how to sequence the next stage of the network. Should it prioritize an externally financed facilities-based build and accelerate the migration of compatible Boost Mobile customers onto its own network? Should it protect liquidity by focusing on the minimum construction needed to satisfy license obligations and continue relying more heavily on wholesale coverage? Or should it stage additional investment against financing, license-compliance, network-quality and customer-traffic milestones?

Assignment: Prepare a recommendation for EchoStar's senior leadership using information available on August 9, 2024. Explain how the company should prioritize required license construction, discretionary network expansion and customer migration while addressing near-term financing. Identify what evidence or commitments should trigger more or less investment. Make clear what is known, what EchoStar claims, and what remains uncertain. Do not assume that wholesale service replaces FCC buildout obligations or that any financing is available on favorable terms.

A merged company with a new network ambition

EchoStar completed its acquisition of DISH Network on December 31, 2023. It combined a large Pay-TV and satellite-services business with spectrum licenses, the Boost retail wireless business and a multiyear 5G deployment. EchoStar said it had invested over \$30 billion in wireless spectrum licenses, excluding \$9 billion of capitalized interest. Management's stated strategy was to commercialize that spectrum through a cloud-native Open Radio Access Network (Open RAN) 5G network. Those historical license investments are not the same measure as the cost of building and operating the network. [S1, Note 1, pp. 5-7.]

EchoStar said it had deployed 5G Voice over New Radio (VoNR) covering more than 200 million Americans and 5G broadband service covering more than 250 million. It was activating compatible Boost Mobile subscribers onto the network in markets where VoNR was available. The company reported 7.281 million wireless subscribers at June 30. It operated Retail Wireless primarily as a mobile virtual network operator (MVNO), purchasing service from T-Mobile and AT&T, while transitioning toward mobile network operator (MNO) status. EchoStar expected AT&T to become its primary network-services provider under a network agreement. Coverage figures and the network's strategic promise are company-reported; they do not by themselves show traffic, quality, profitability or costs avoided. [S1, Note 1, pp. 5-6; MD&A, pp. 71-73.]

The market is difficult to enter at scale. EchoStar's filing identified Verizon, AT&T and T-Mobile as the only nationwide U.S. MNOs, described them as significantly larger, and cited their scale advantages. EchoStar also competes with carrier-affiliated prepaid brands and independent MVNOs. [S1, MD&A, "Competition," p. 73.]

Verizon's July 2024 results provide one illustration of the resource gap: it reported \$19.8 billion in second-quarter wireless service revenue, \$8.1 billion of first-half capital expenditure, and \$8.5 billion of first-half free cash flow. These are company-reported figures for a much larger operator and have different business and reporting scopes from EchoStar's; they do not establish comparable network productivity or economics. [S5, "Consolidated results."]

A regulatory clock-and an uneven buildout map

The FCC's requirements make the investment question more complicated than simply deciding whether to build. EchoStar reported that it had met all band-specific deployment commitments due June 14, 2023, and two of three nationwide commitments. It said the remaining nationwide requirement-70% of the U.S. population having access to average download speeds of at least 35 Mbps-was achieved in March 2024 using a drive-test method agreed with the FCC and overseen by an independent monitor. [S1, Note 1, pp. 6-7.]

Several band-specific deadlines remained for June 14, 2025. As described in EchoStar's filing, the 700 MHz and AWS-4 licenses required 5G broadband service to at least 70% of the population in each Economic Area; H Block required 75% in each Economic Area; and 600 MHz required 75% in each Partial Economic Area for the licenses with that deadline. Certain privately acquired 600 MHz licenses had their original deadlines. [S1, Note 10, license table and footnotes, pp. 29-30.]

EchoStar said fully constructed facilities and construction in process would be sufficient to meet many of the upcoming requirements for licenses representing approximately 90% of the aggregate carrying value of the specified bands. It also said it needed additional capital to meet requirements for remaining licenses, and that insufficient funding or construction delays could risk losing licenses and impairing their carrying value. The 90% figure is based on license carrying value, including capitalized interest; it is not a statement that 90% of licenses, sites, population coverage or regulatory work was complete. [S1, Note 1, pp. 6-7; Note 10, pp. 29-30.]

The filing says EchoStar expected approximately \$10 billion of 5G deployment capital expenditures, including spending from 2021 through June 2024 and excluding capitalized interest. That amount describes a broad historical and current investment program; it does not disclose the remaining cost to satisfy each license obligation or the optional cost of expanding beyond those minimums. The company said further network investments or partnerships could be needed. [S1, Note 10, pp. 29-30.]

Liquidity before the deadline

At June 30, EchoStar had \$521 million in cash, cash equivalents and current marketable securities, a measure it called “Cash on Hand.” It had \$1.983 billion of 5⁷/₈% notes due November 15, 2024. The company forecast negative cash flows for the rest of 2024 and stated that it lacked committed financing to fund at least 12 months of operations. Its filing said substantial doubt existed about its ability to continue as a going concern and that it did not then have the cash or projected future cash flows to cover fourth-quarter operations and the November maturity. It also reported active discussions with funding sources. [S1, Note 1, p. 5; MD&A, “Liquidity and Capital Resources,” pp. 90-91.]

Exhibit 1. EchoStar’s first-half cash and investment measures

Six months ended June 30, 2024; USD billions, rounded. Values use EchoStar’s reported definitions.

Measure	Amount	What it measures
Cash, equivalents and current marketable securities at June 30	\$0.521	Company-defined “Cash on Hand”; excludes separately reported restricted cash.
Operating cash flow	\$0.931	Net cash provided by operating activities during the half-year.
Total capex, net of refunds, including capitalized regulatory-license interest	\$1.349	Cash invested in property and equipment and capitalized interest.
Company-defined free cash flow	\$(0.418)	Operating cash flow less capex/refunds and capitalized regulatory-authorization interest; non-GAAP.
Notes due November 15, 2024	\$1.983	Contractual debt maturity identified in the filing.

Source: [S1], MD&A “Liquidity and Capital Resources,” pp. 90-93. Values rounded from reported amounts. The \$521 million is a balance at a point in time; the other measures cover six months. Free cash flow is not a GAAP measure and is not the same as net income.

EchoStar’s liquidity declined from \$2.444 billion at December 31, 2023. It attributed the change mainly to capital expenditures of \$1.349 billion, redemption of \$951 million of convertible notes and a \$442 million purchase of SNR Management’s ownership interest, partly offset by \$931 million in operating cash flow. These uses include the prior-year-end liquidity available for operations and investments; they do not reveal how much discretionary network capital remained. [S1, MD&A, pp. 90-92.]

The economics are difficult to read from one quarter

The 5G Network Deployment segment reported first-half revenue of \$65 million, operating loss of \$1.150 billion and OIBDA loss of \$647 million. Its first-half capital expenditures were \$1.110 billion, compared with \$2.055 billion in the prior-year period. Company-wide capex was \$1.349 billion. These measures describe different things: operating loss includes depreciation and expenses, OIBDA is a non-GAAP measure excluding depreciation and amortization, and capex is investment rather than a period operating expense. None alone estimates the network’s future return. [S1, segment table, pp. 48-49; MD&A, pp. 78-80.]

Some year-over-year comparison is also affected by accounting presentation. Starting January 1, 2024, as the network began carrying commercial traffic, EchoStar classified certain tower leases, transport, cloud and personnel costs in cost of services; some had previously appeared in other expense lines. The company said this classification change did not affect net income. It also reported higher depreciation as 5G assets entered service and expected depreciation to rise further. [S1, Note 2, pp. 12-13; MD&A, pp. 79-80.]

Exhibit 2. Selected first-half results

USD millions except subscribers; six months ended June 30, 2024.

EchoStar measure	Reported amount	Comparison / definition
Total revenue	\$7,968	\$8,744 in 1H 2023.
Net loss attributable to EchoStar	\$(313)	Net income of \$466 in 1H 2023.
Consolidated OIBDA	\$912	\$1,324 in 1H 2023; non-GAAP, defined by EchoStar as operating income/loss plus D&A.
5G Network Deployment revenue	\$65	Equipment sales and other revenue; no service revenue reported in the first half.
5G Network Deployment operating loss	\$(1,150)	Includes depreciation and amortization.
5G Network Deployment OIBDA	\$(647)	Segment operating loss plus D&A.
5G Network Deployment capex	\$1,110	Includes capitalized regulatory-license interest, per release table.
Retail Wireless subscribers at June 30	7.281 million	EchoStar-reported subscriber total.

Source: [S1], segment table, pp. 48-49 and MD&A pp. 78-80; [S2], results release, pp. 1-3. Rounded to nearest million; use original filings for exact amounts. Operating loss, OIBDA and capex are not interchangeable.

Retail Wireless lost about 16,000 net subscribers in the second quarter, compared with a loss of 188,000 in the prior-year quarter. EchoStar said that excluding net losses among government-subsidized customers after the Affordable Connectivity Program ended, the company added about 32,000 wireless subscribers. Its total wireless service revenue declined 8.1% year over year in Q2 to \$785 million, while customer equipment and other revenue increased. The release said lower churn was offset by lower gross additions and ACP subsidy losses. [S1, MD&A, pp. 71-73; S2, p. 1.]

That performance leaves management with a commercial question as well as a construction one. A broader own-network footprint might reduce wholesale dependence, allow EchoStar to control more of the customer experience and support a differentiated offer. But the public filing does not disclose compatible-device migration rates, traffic by market, costs avoided per migrated customer, wholesale pricing, network quality comparisons, or incremental cost per coverage or capacity improvement.

What outside research can tell you

Research on mobile-network competition does not produce an EchoStar forecast, but it identifies opposing investment mechanisms.

Genakos, Valletti and Verboven analyze operator prices and accounts in 33 OECD countries from 2002 to 2014 using country/time fixed effects and instrumental variables to address endogeneity in market concentration. They estimate that a hypothetical symmetric four-to-three operator merger would raise end-user bills by 16.3% and investment per operator by 19.3%, while the total industry investment effect was imprecise. The authors cannot determine whether any investment efficiencies came from fixed-cost savings, lower marginal costs or quality improvements. Their study concerns market structure and mergers in established OECD networks, not the financing or returns of a single U.S. entrant. [S3, Sections 3-7, printed pp. 8-30.]

Björkegren builds a structural model of customer adoption, pricing and rural tower investment using 4.5 years of call records from a dominant Rwandan operator, regulator cost data and survey inputs. In a simulated counterfactual, earlier entry could reduce prices and increase the incumbent's incentive to invest in rural towers: an entrant can steal customers through coverage even as competition reduces total profits. The modeled welfare gain is 33-38% over four years. But the setting involved basic, mostly prepaid voice phones in Rwanda in 2005-09; results depend on modeled assumptions about switching, network effects and interconnection. The paper does not estimate the economics of U.S. 5G or EchoStar's license obligations. [S4, Introduction pp. 201-203; data pp. 206-209; model and results pp. 210-221.]

Together, the studies suggest that scale, network effects, compatibility and customer stealing can pull investment incentives in different directions. They do not tell EchoStar which project to fund, what return to expect or how much capital it needs. Any recommendation must connect public customer, cost, financing and license evidence to a specific decision rule.

Decision memo

Recommend a deployment and commercialization posture for the next stage of EchoStar's 5G network. Address:

1. What construction is required to preserve license rights, and what additional buildout is discretionary?
2. How should leadership balance the November maturity, operating liquidity and capital needed before June 2025?
3. What role should AT&T and T-Mobile wholesale access play while Boost customers migrate to EchoStar's network?
4. What financing, license, construction, traffic, customer-experience and unit-economics evidence should release the next tranche of investment?
5. What are the strongest arguments against your recommendation, and what data would cause you to change it?

State any assumptions explicitly. You may recommend a staged plan, an accelerated build or a more wholesale-dependent approach, but explain how it remains compliant with actual license terms. Do not treat coverage claims as proof of network quality or assume that financing, partnership terms or regulatory relief will be available.

Sources

- **[S1]** EchoStar Corporation, Form 10-Q for quarter ended June 30, 2024, filed August 9, 2024, SEC accession 0001558370-24-011672. [SEC filing index](#); [10-Q](#).
- **[S2]** EchoStar, “EchoStar Announces Financial Results for the Three and Six Months Ended June 30, 2024,” August 9, 2024. [Official release](#); [PDF](#).
- **[S3]** Genakos, Christos, Tommaso Valletti and Frank Verboven. 2018. “Evaluating Market Consolidation in Mobile Communications.” *Economic Policy* 33(93): 45-100. [Accepted version](#); [published article DOI](#).
- **[S4]** Björkegren, Daniel. 2022. “Competition in Network Industries: Evidence from the Rwandan Mobile Phone Network.” *RAND Journal of Economics* 53(1): 200-225. [Publisher record](#); [full-text article](#).
- **[S5]** Verizon Communications Inc., “Verizon delivers strong wireless service revenue and broadband subscriber growth in Q2,” 22 July 2024. [Official release](#).