

The logo for AST SpaceMobile. 'AST' is in a large, white, bold, sans-serif font. 'SpaceMobile' is in a smaller, orange, bold, sans-serif font. The background is a dark space with a bright, glowing orange arc of light curving across the top right.

AST SpaceMobile

Transforming how
the world connects



NASDAQ: ASTS

Investor Presentation

April 2024

Forward Looking Statements

The information in this presentation and the oral statements made in connection therewith includes “forward-looking statements” for the purposes of federal securities laws that are not historical facts and involve risks and uncertainties that could cause actual results to differ materially from those expected and projected. All statements, other than statements of historical fact in this presentation and the oral statements made in connection therewith regarding AST SpaceMobile, Inc.’s, collectively with its subsidiaries (“SpaceMobile” or the “Company”), financial position, business strategy and the plans and objectives of management for future operations, are forward-looking statements. Words such as “expect,” “believe,” “anticipate,” “intend,” “estimate,” “seek” and variations and similar words and expressions are intended to identify such forward-looking statements. Such forward-looking statements relate to future events or future performance, but reflect management’s current beliefs, based on information currently available. A number of factors could cause actual events, performance or results to differ materially from the events, performance and results discussed in the forward-looking statements. For information identifying important factors that could cause actual results to differ materially from those anticipated in the forward-looking statements, please refer to the Risk Factors contained in AST SpaceMobile’s Annual Report on Form 10-K, filed with the SEC on April 1, 2024. The Company’s securities filings can be accessed on the EDGAR section of the SEC’s website at www.sec.gov. Except as expressly required by applicable securities law, the Company disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

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AST SpaceMobile is building the first & only space-based cellular broadband network



Raised over \$1 billion to date to fund network build and technology with **3,350+ patent and patent-pending claims**



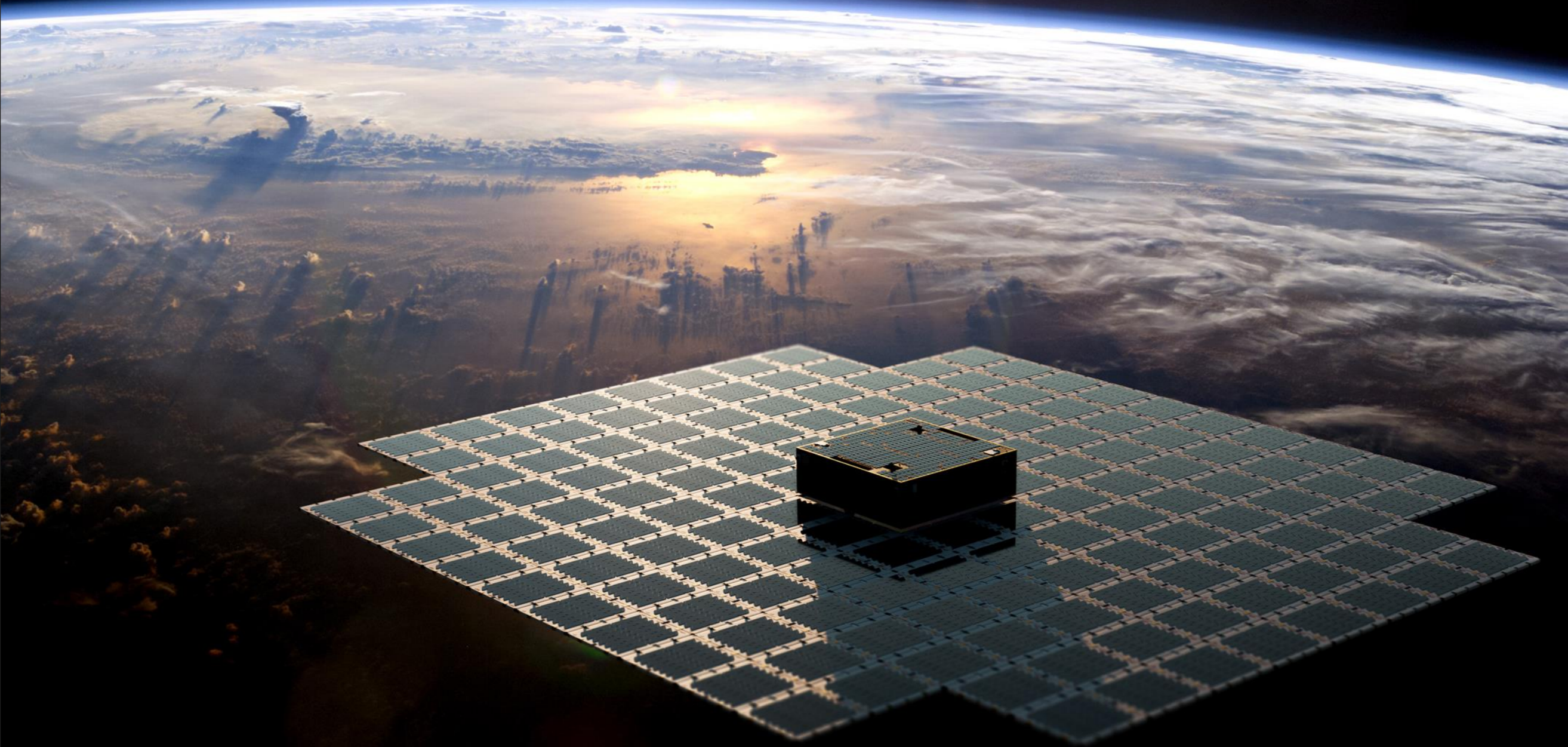
Signed agreements and understandings with **40+ mobile network operators** with **2+ billion existing subscribers**



Confirmed 5G cellular broadband capabilities and achieved **14 mbps download speeds** to everyday smartphones directly from space



Announced **strategic investment** from **AT&T, Google and Vodafone** to support the commercial roll-out of AST SpaceMobile's network



Strategic investment from AT&T, Google and Vodafone

Investment from leading wireless ecosystem players is intended to support the commercial roll-out of the AST SpaceMobile network



AT&T



vodafone

- ✓ **AT&T, Google, Vodafone:** \$110 million of 10-year subordinated convertible notes with 5.50% annual interest (which may be paid in kind), with a conversion price of \$5.75 per share
- ✓ **AT&T:** \$20 million revenue commitment, payable on the launch and successful initial operation of the first 5 commercial satellites
- ✓ **Vodafone:** \$25 million minimum revenue commitment, subject to a definitive agreement
- ✓ **Vodafone, AT&T:** placed purchase orders for network equipment from AST SpaceMobile to support planned commercial service, for an undisclosed amount
- ✓ **Google:** agreed to collaborate on product development, testing and implementation plans for SpaceMobile network connectivity on Android and related devices

Transforming connectivity with direct-to-cell technology (5G + 4G LTE)

“Eliminating the friction of specialized equipment and spectrum bands from direct-to-cellular satellite coverage, at broadband speeds, is a transformational event for the communications industry”

“Not only do we expect to provide essential, affordable broadband connectivity to everyone everywhere, we are working to expand the market to billions of individuals and devices”



- Abel Avellan
Chairman and CEO



Everyday smartphones from all major brands have communicated with BW3



Market opportunity is deep, untapped and expanding

\$1.1 Trillion

global mobile wireless services market

5.6 Billion

mobile phones and devices moving in and out
of coverage

42%

global population without cellular broadband

~90%

of Earth's surface without cellular coverage

\$67 Billion

8-yr expected demand for satellite direct-to-
device communications ¹

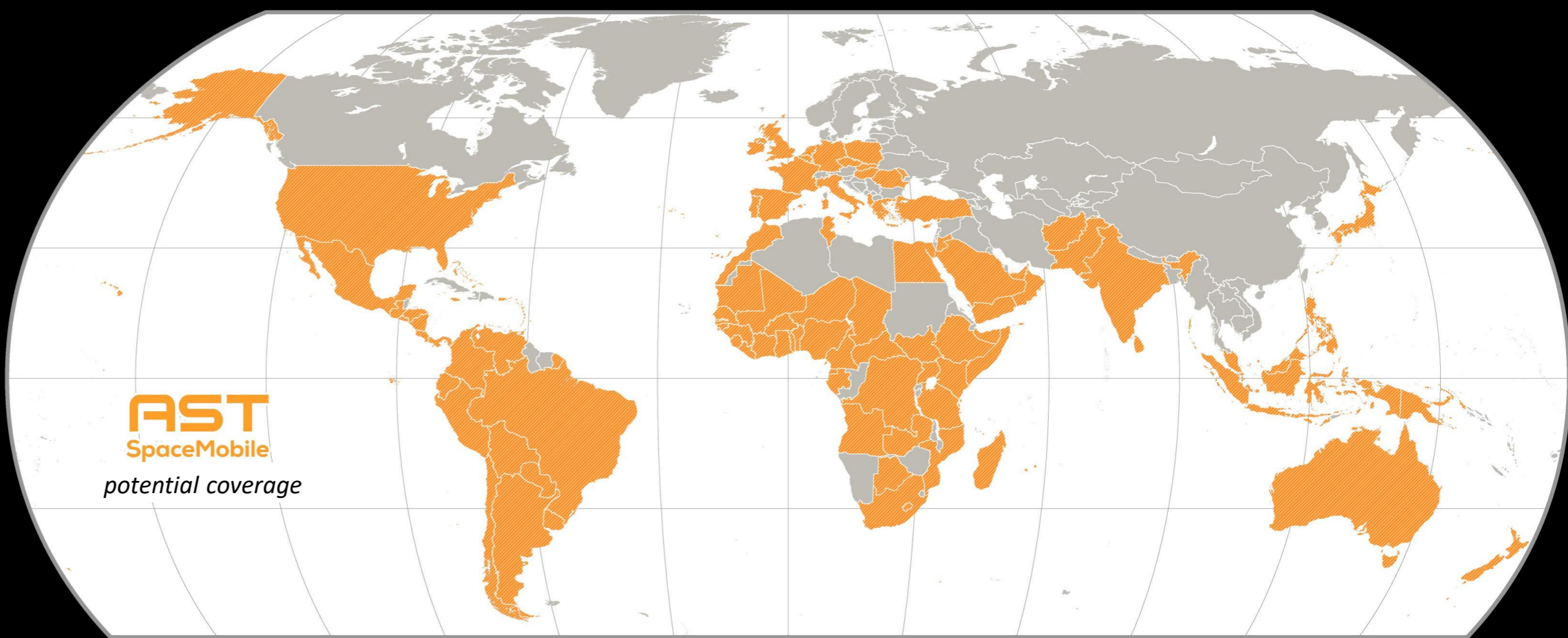
Source: GSMA market data as of December 31, 2023.

1. Represents 2023-2030 cumulative estimated demand,
per Northern Sky Research.



Top Mobile Network Operators (MNOs) are AST investors, partners and customers

When operational, SpaceMobile service will be available to MNOs on a wholesale basis, with existing relationships spanning nearly all large countries (ex. China/Russia)



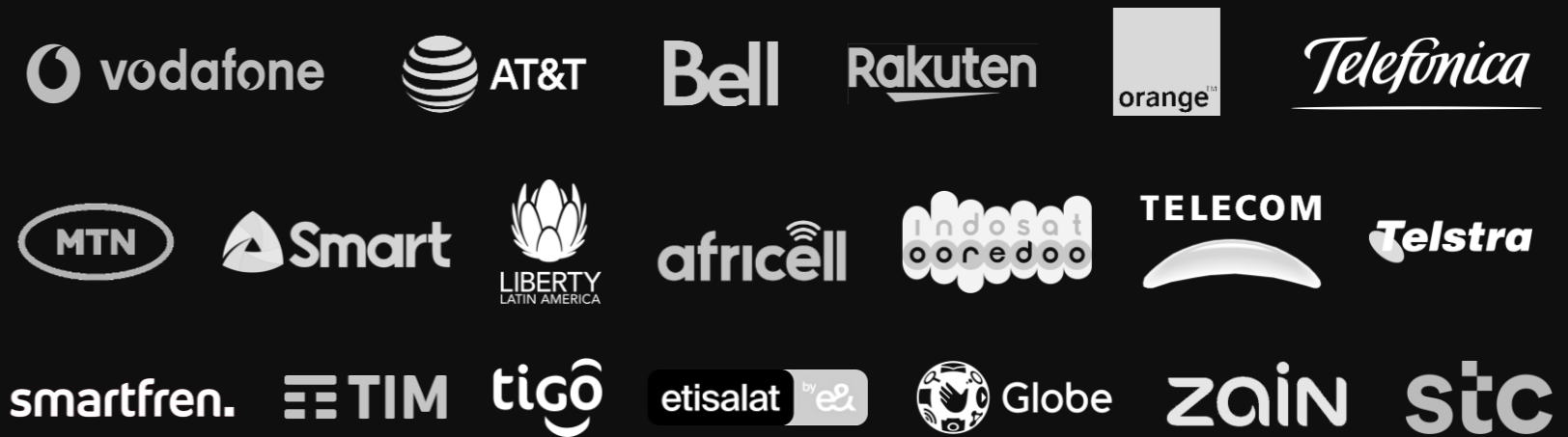
Note: Memoranda of understanding and preliminary agreements are not binding and are subject to negotiation of definitive documentation.

- ✓ Leverages existing 5.6 billion mobile phones and devices
- ✓ Easy sign-up for cellular subscribers
- ✓ Super-wholesale revenue share model with MNOs
- ✓ Intended to drive new MNO partner revenue and reduced churn

Strategic Investors

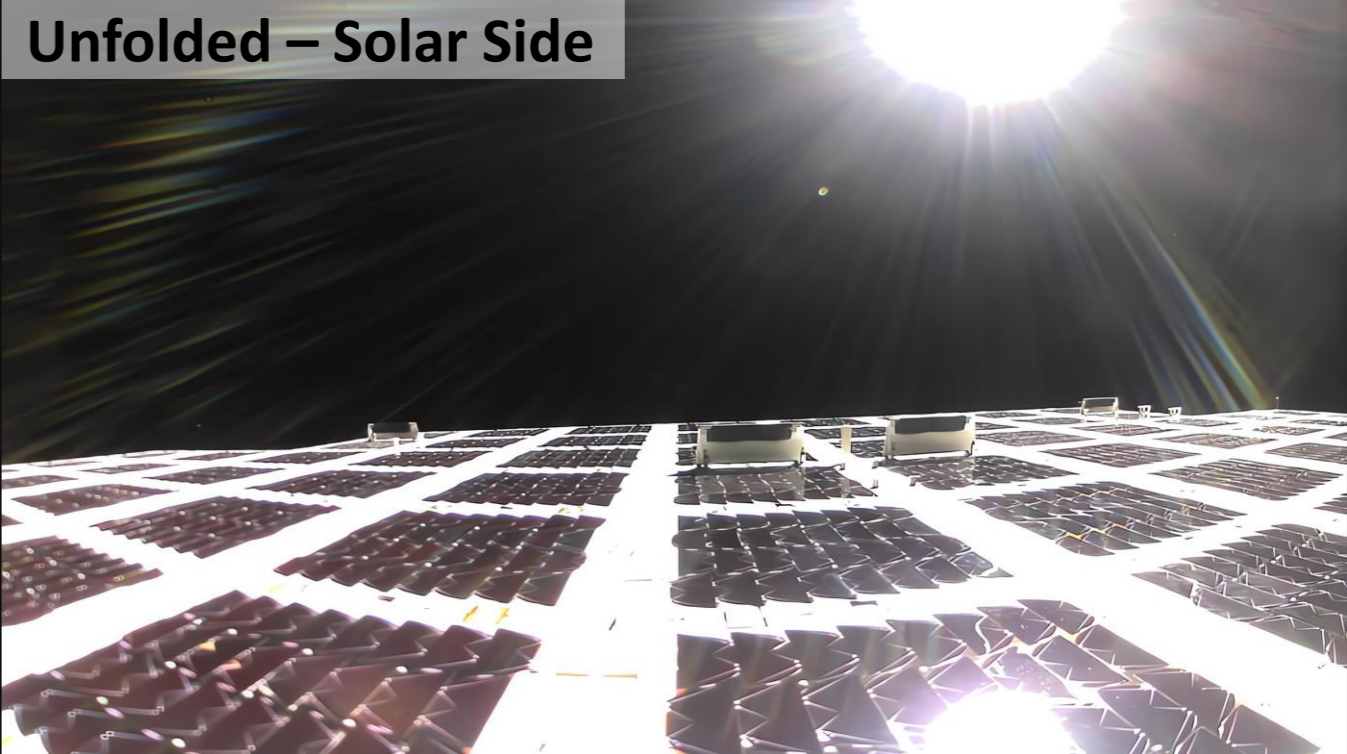
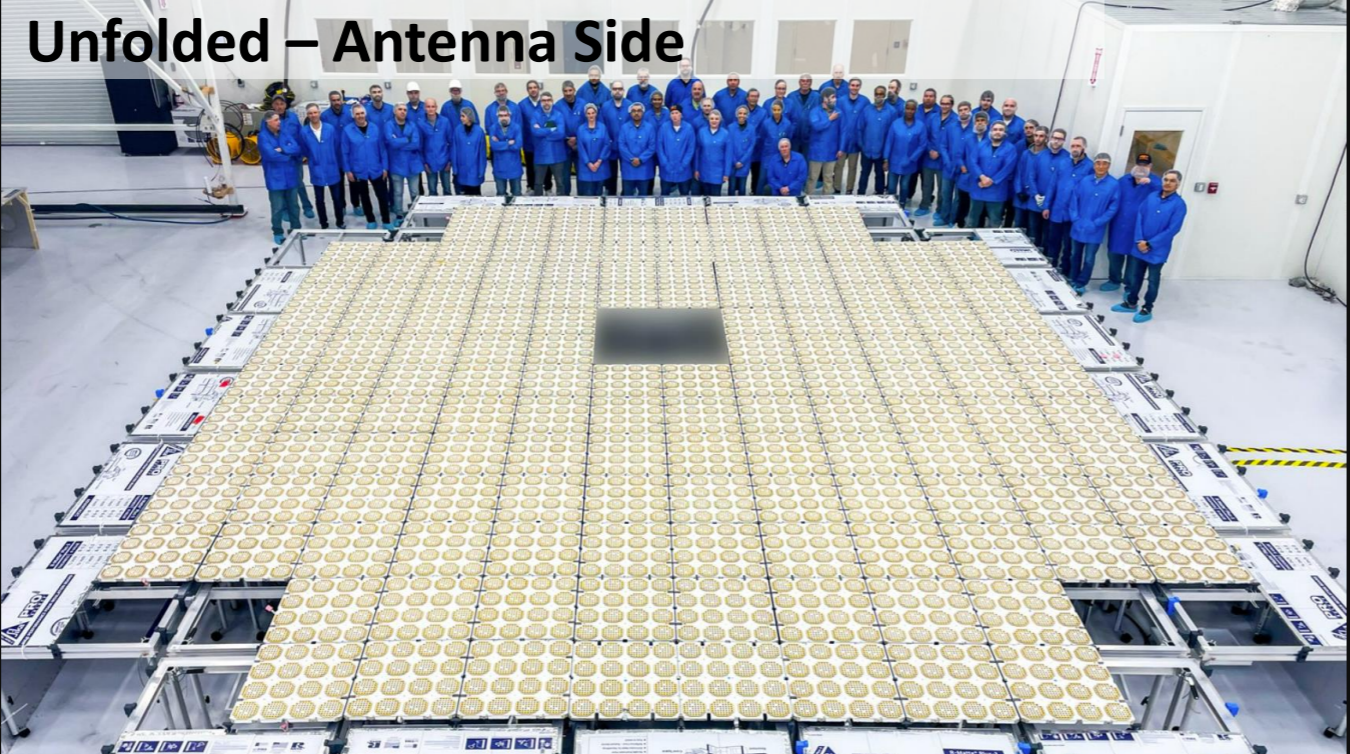
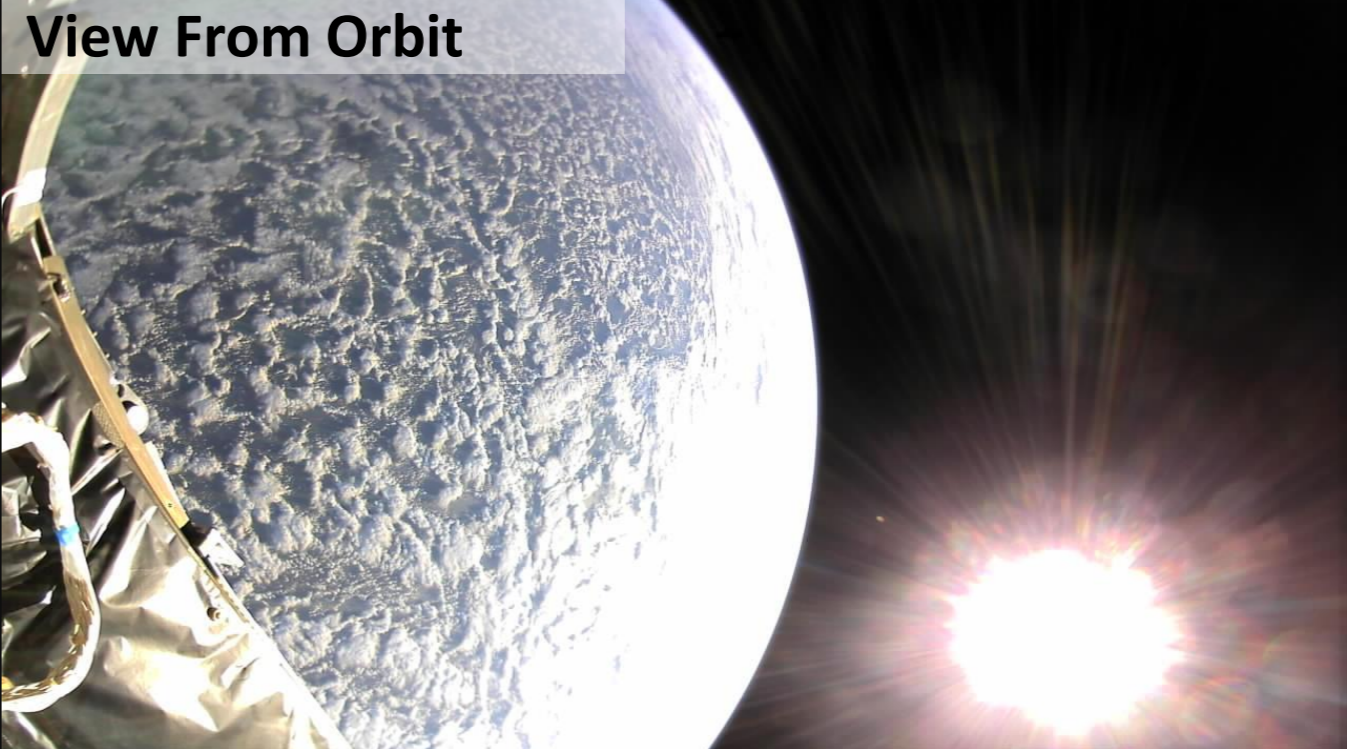


Select MNO Partners



Currently operating the largest-ever commercial communications array deployed in low Earth orbit

BlueWalker 3 has a 693 sq ft phased array, designed to support cellular broadband directly to unmodified mobile phones, adhering to today's cellular standards



[Click here](#) to see how we assembled, launched and deployed BW3, and [click here](#) for an overview of the mission

History made:
connecting
everyday
smartphones
directly from space
using BlueWalker 3



September 2023

5G Voice Calls
14 Mbps Data Rate
(Per 5MHz Channels)

In a 5G first-ever, we demonstrated space-based 5G connectivity by placing a call from Maui, Hawaii, USA, to a Vodafone engineer in Madrid, Spain, using AT&T spectrum



June 2023

4G LTE Voice Calls
10 Mbps Data Rate

In a LTE first-ever, using AT&T spectrum, we again connected everyday smartphones to BlueWalker 3



April 2023

2G Voice Calls

The first voice call was made from the Midland, Texas area to Rakuten in Japan over AT&T spectrum using a Samsung Galaxy S22 smartphone



How subscribers are expected to use SpaceMobile

Significant flexibility in go-to-market strategy, with multiple potential ways for cellular subscribers to access more and better connectivity



Vodafone offering SpaceMobile services

Vodafone customers will benefit from the assurance of go-anywhere coverage. Seamlessly augmenting Vodafone's market-leading terrestrial networks.

- Video Calls
- SMS Texts
- Internet Browsing
- Email
- Music Streaming
- Social Media

Unlimited Max + Entertainment + SpaceMobile
XX€ For 6 months (then XX€)

Includes

- Unlimited minutes & texts.
- 5G ready at no extra cost.
- Speed: Fastest available.
- Your choice of entertainment for 24 months

Go anywhere coverage. Powered by SpaceMobile.

Choose plan



3Q 2023 Earnings and Highlights

Raising full-year free cash flow* guidance to **~\$16.5B**

AT&T Fiber revenues **up 26.9%**

15 straight quarters with **200K+** AT&T Fiber net adds

Mobility service revenues **up 3.7% YoY** to **\$15.9B**

Launched **AT&T Internet Air** in 20 locations

Industry First
Supported **AST SpaceMobile** in **world-first direct 5G voice call** between two unmodified smartphones via a low-earth orbit satellite in space

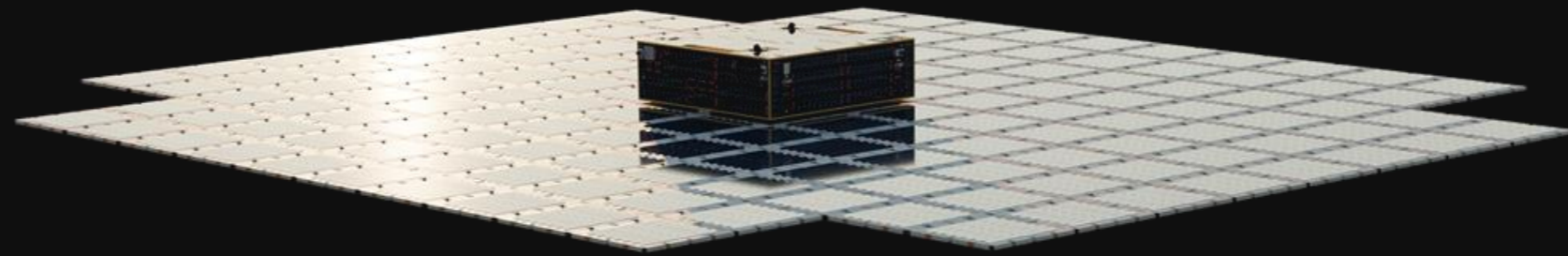
Data in Demand
649.3PB average daily network traffic

~19% increase in network traffic YoY

Announced new contract award with United States Government through Prime Contractor

Many potential use cases for a large phased array antenna in low Earth orbit

- ✓ Initial firm-fixed-priced contract, for an undisclosed amount, will be supported by ground and in-orbit system
- ✓ Large phased array antenna technology in space creates potential opportunities for new mission-critical capabilities in the government sector
- ✓ Revenue from contract to be recorded starting in Q1 2024



Vertically
integrated
manufacturing to
support rapid
constellation build

Two locations in Texas with combined 185,000 sq ft and existing capacity to produce up to two satellites / month, and potential capacity of six / month, using automated processes





Entered tape-out phase of custom ASIC with TSMC

Custom ASIC, which is planned to support up to 120 Mbps peak data rates, is one key enabler of space-based cellular broadband



- Represents a competitive advantage developed over four years, equivalent to an estimated 150 man-years, with approximately \$45 million of development costs
- Novel, custom and low-power architecture developed to enable up to a 10x improvement in processing bandwidth, totaling 10,000 MHz, on each satellite
- The combination of the ASIC and our large phased array are key enablers of cellular broadband directly from space

AST SpaceMobile differentiation



Only pure play, low Earth orbit (LEO) broadband communications company that is publicly-traded



Novel technology solution applicable to a market of 5.6 billion mobile phones and devices and the related \$1.1+ trillion TAM ¹



Jointly going to market, not competing, with mobile network operators with hundreds of millions of subscribers



Revenue share business model designed to allow users to sign up with a simple text message



Approximately \$211 million cash and cash equivalents to fund business operations and initial production satellites ²

1. AST SpaceMobile market size based on GSMA Intelligence estimate of total cellular wireless market spend. As of December 31, 2023.
2. Estimated cash and cash equivalents as of March 31, 2024.

Appendix



Company snapshot

Founder-led leadership and deep team with decades of successful execution

Global Infrastructure



Midland HQ /
Manufacturing Facilities

Maryland Satellite Operations and
Network Operations Center /
Space Assembly Lab

Israel
RF/Hardware
Design

Spain
Mechanical
Design

United Kingdom
Manufacturing/
Support

India
Research &
Development



Abel Avellan
Chairman and CEO

- 25+ years space industry experience
- Co-inventor of 21 U.S. Patents
- Former Founder and CEO of EMC (Emerging Markets Comms.) until \$550mm sale in 2016
- Provided initial seed capital for AST SpaceMobile



Sean Wallace
Chief Financial Officer

- 25+ years senior management and banking experience
- Prior CFO and Treasurer of Cogent Communications
- Former banking leadership positions at Standard Chartered Bank and J.P. Morgan



Scott Wisniewski
Chief Strategy Officer

- 15+ years of M&A / financing experience
- Previously Managing Director, TMT Investment Banking at Barclays
- Advised AST on its \$110mm Series B in 2019 and the SPAC merger / PIPE financing in 2021



Brian Heller
General Counsel and Secretary

- 20+ years of public company legal experience
- Prior General Counsel of Castle Brands Inc.
- Former Partner practicing Corporate and IP law



Chris Ivory
Chief Commercial Officer

- 25+ years in satcom, business development and government / regulatory affairs
- Led Commercial Business Unit as EVP Globecomm
- Former SVP of Satellite Land Services at EMC



Dr. Huiwen Yao
Chief Technology Officer

- 30+ years RF engineering + satcom
- Prior: Northrop Grumman Innovation Systems (Orbital ATK)
- 40+ GEO satellites built



Dr. Ray Sedwick
Chief Space Scientist

- Director, Space Power and Propulsion Lab at University of Maryland
- NASA Innovative Advanced Concepts Fellow

SpaceMobile will connect directly to everyday mobile phones

Source: GSMA Intelligence (data as of 12/31/2023).

Building the first and only space-based cellular broadband network



Giant total addressable market
Global wireless services market generates over \$1.1 trillion in annual revenue via 5.6 billion mobile phones and devices



Revolutionary tech, over 3,350 patent & patent-pending claims and first-mover advantage
Technology designed to deliver broadband from space to unmodified mobile devices, providing a service to fill cellular coverage gaps



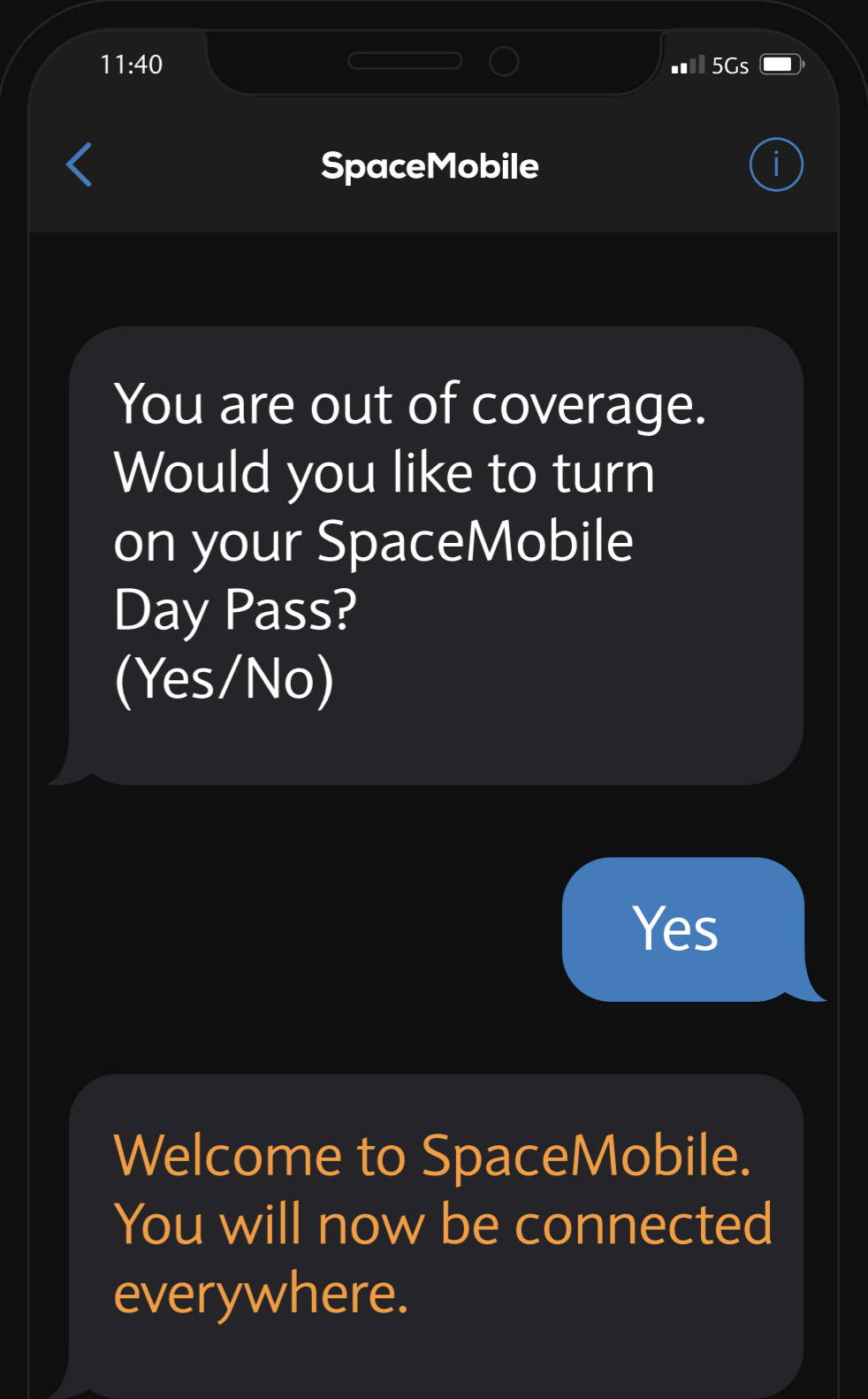
Industry-leading strategic partners
Investment, development and commercial relationships with Vodafone, AT&T, Google, American Tower, Rakuten and others



Built-in customer base ready to be turned on
When operational, SpaceMobile service will be available to our MNO customers, a growing list of leading companies that have over 2 billion existing subscribers



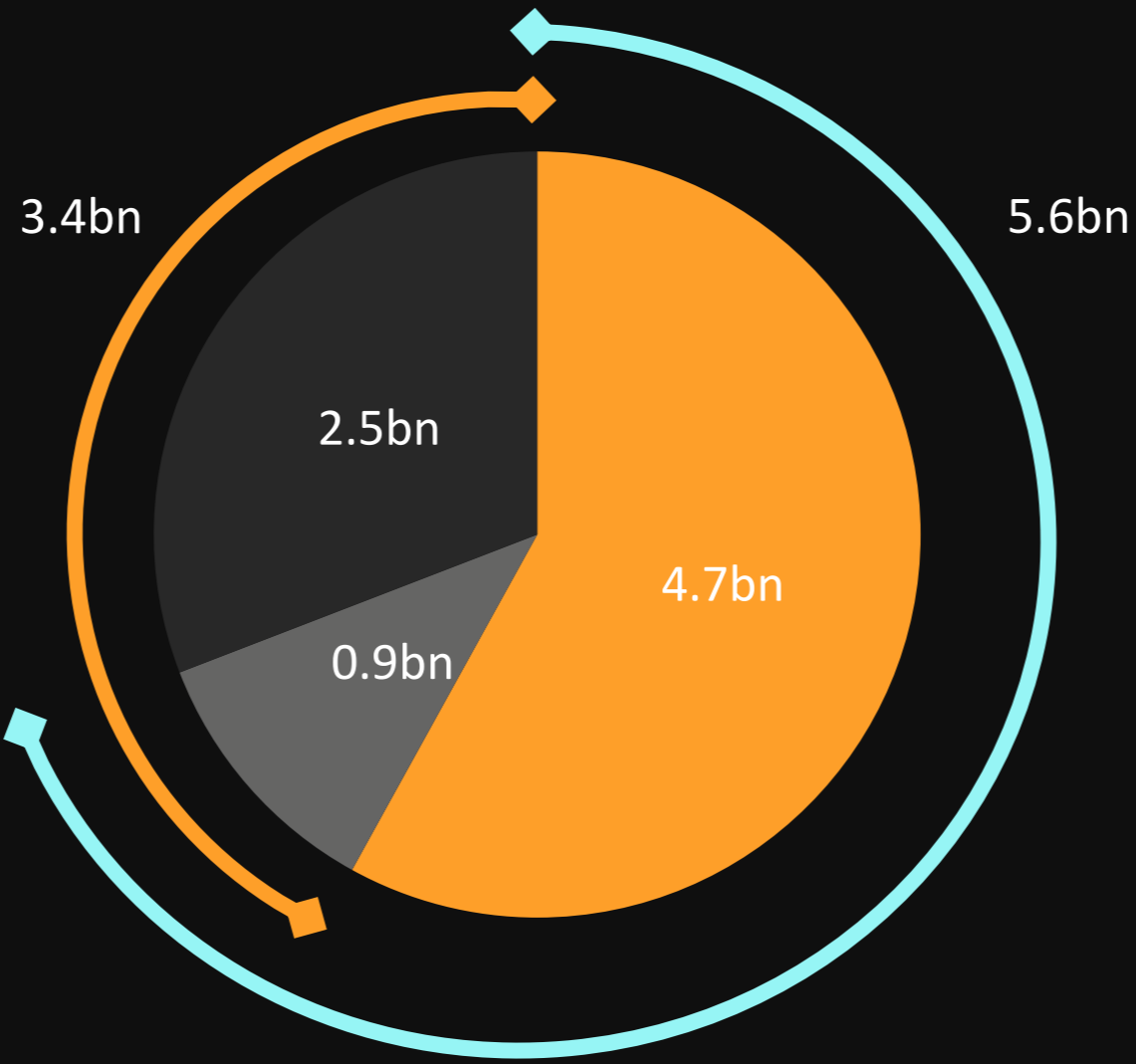
Flexible, scalable, super-wholesale business model
The SpaceMobile network is designed to provide easy sign-up for existing MNO subscribers under revenue share agreements



5.6 billion mobile phones and devices globally

Global wireless services market generates over \$1.1 trillion in annual revenue, with a backdrop of evolving and imperfect networks

Global Population – 8.1 billion



5.6 billion unique cellular subscribers

move in and out of coverage as they live, work and travel

3.4 billion not subscribed to cellular broadband

0.4 billion have no coverage

3.0 billion usage gap




- Cellular subscribers - broadband
- Cellular subscribers - no broadband
- Not a cellular subscriber

Source: GSMA Intelligence (data as of December 31, 2023).

AST SpaceMobile technology solution

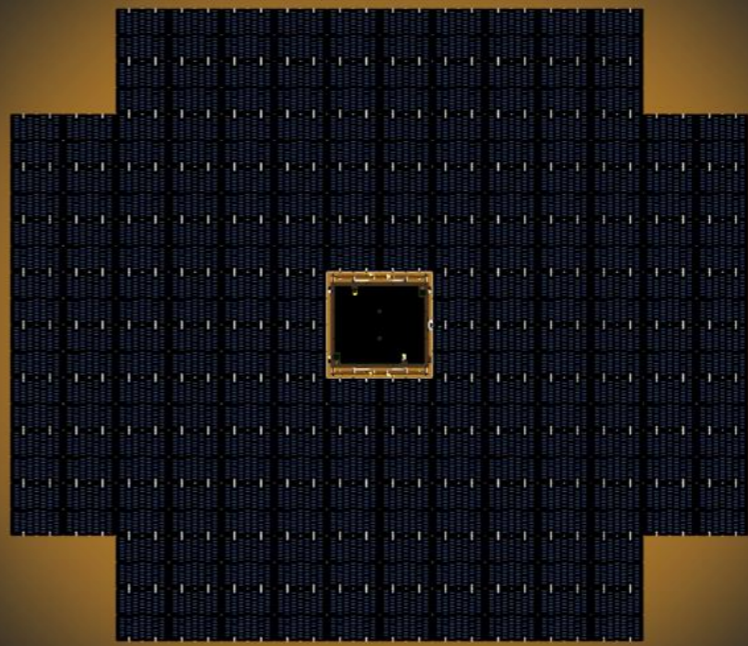
Differentiated approach compared to existing space-based communications

1. Market size based on the sum of 2020A revenues of included providers, AST SpaceMobile market size based on GSMA estimate of total cellular wireless market spend.

	First & Only Broadband Direct To Mobile Phones	Direct via Proprietary Mobile Phones	Indirect via Complex, Expensive Hardware
			
	Any standard mobile phone	Provider-specific satphones (~\$1K)	Provider-specific antennas mounted on planes, ships, vehicles, buildings (~\$1K-\$200K+)
End Users	Mass market mobility and the unconnected	Narrowband service on satphones	Enterprise, Maritime, Aviation, Government, Residential
Market Size ¹	> \$1 trillion	< \$2 billion	< \$20 billion

Satellite-to-cellular architecture is transparent to end-user

SpaceMobile network designed to closely mirror terrestrial cellular architecture



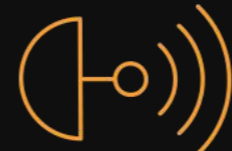
Satellites in low Earth orbit to offer low-latency and attractive look angles

Large satellites designed to create over 1 million fixed terrestrial cells globally with broadband capacity

Low- and mid-band frequencies shared with wireless operators on non-interference basis

High-throughput Q/V-band feeder links for backhaul

Direct link to unmodified mobile phones and other cellular devices



Gateways / Partner Network



Terrestrial Telecom Network

How subscribers are expected to use SpaceMobile

Significant flexibility in go-to-market strategy, with multiple potential ways for cellular subscribers to access more and better connectivity

Day Pass
(Broadband)

- Subscribers receive a text on their phone asking if they would like to turn on SpaceMobile service

Monthly Add-on
(Consumer)

- A fixed monthly rate to add SpaceMobile as a supplemental service to existing cellular plan
- Automatically connect with SpaceMobile's network upon entering an area without cell tower coverage

Monthly Add-on
(Enterprise)

- Same as consumer, but with more data targeting power users

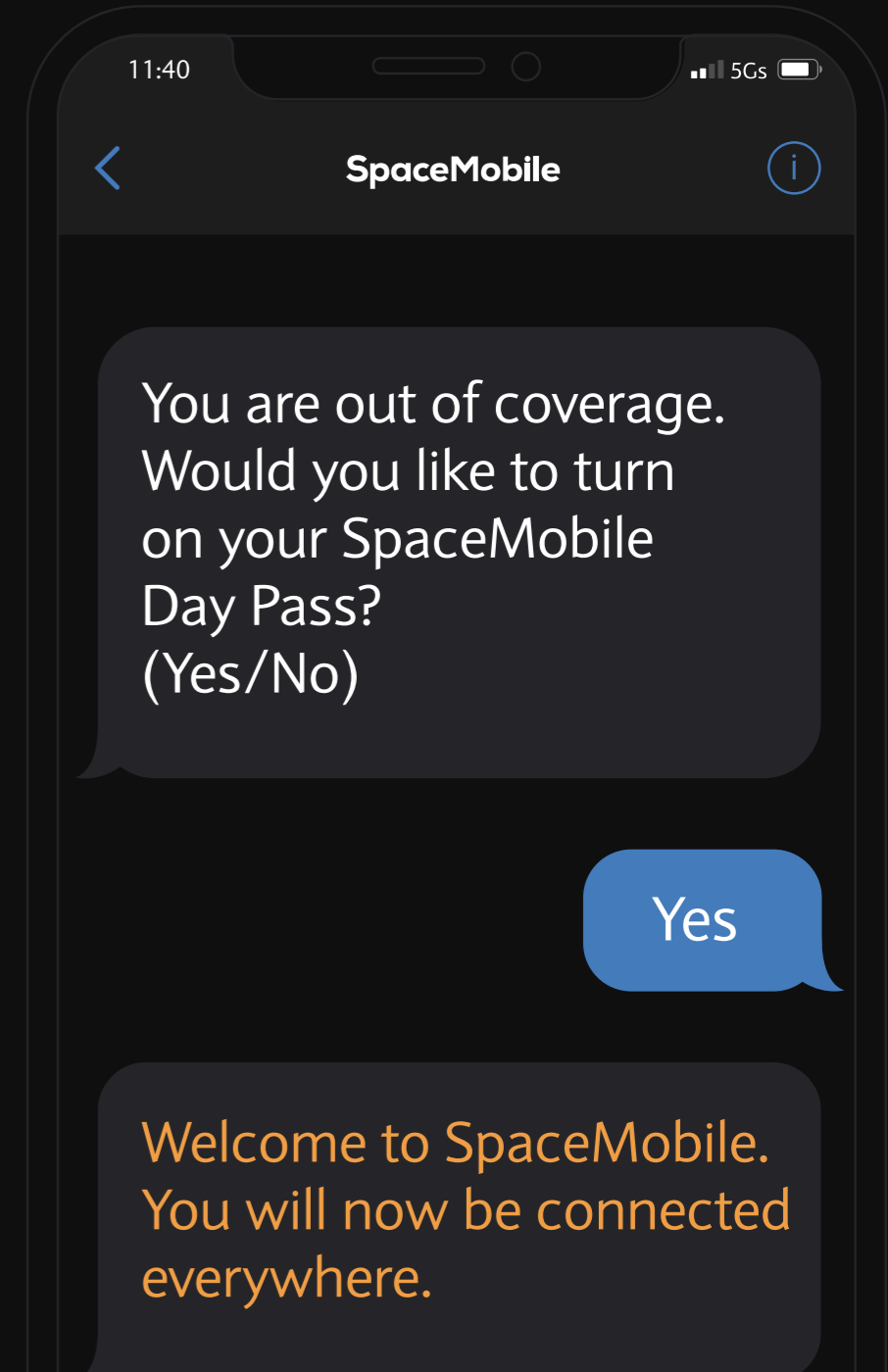
IoT
(Internet of Things)

- Uplink / downlink for cellular compatible IoT devices, for areas with poor terrestrial connectivity

Emergency
Connection

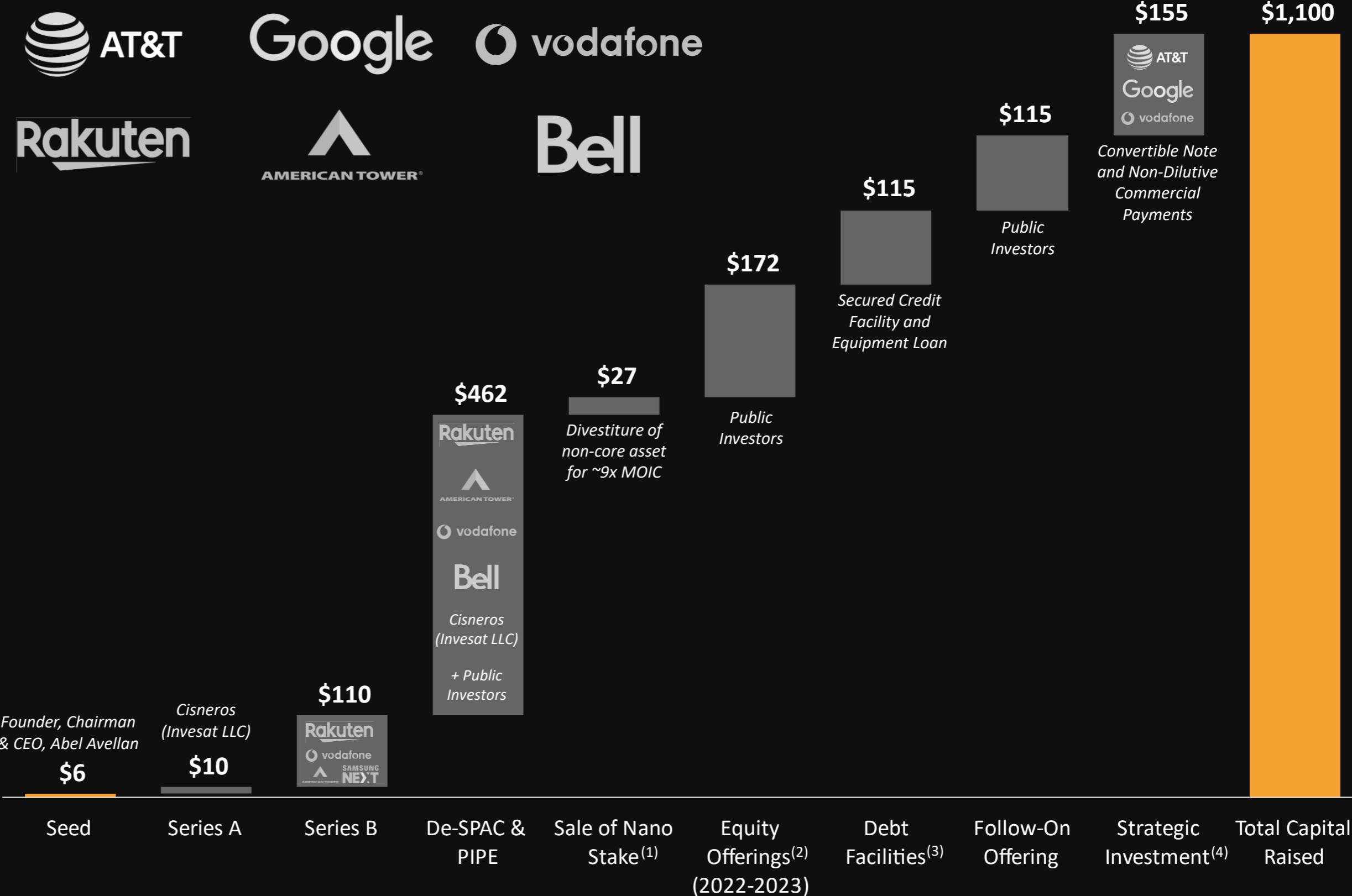
- Subscribers would use SpaceMobile during emergencies and natural disasters when terrestrial networks are not nearby or have failed

Service designed to be compatible with the 5.6 billion existing mobile phones and devices in use globally today



Highly successful funding history

Milestone driven, value-creating financing approach with validation from a high-profile investor base across the wireless ecosystem



1. On September 6, 2022, AST SpaceMobile completed the sale of its 51% interest in its former subsidiary, NanoAvionika UAB (“Nano”) for net proceeds of approximately \$26.6 million
2. Representative of \$75 million of gross proceeds from December 2022 follow-on offering, \$13.4 million of net proceeds from committed equity facility (“CEF”) as of September 30, 2023, \$27.0 million of net proceeds from at-the-market offering program as of September 30, 2023, and \$56.9 million of gross proceeds from June 2023 follow-on offering.
3. Includes \$15.0 million equipment loan from Loan Star Bank, and \$100 million senior secured credit facility. The Company plans to seek a waiver to draw up to an additional \$51.5 million under its senior secured credit facility with ACP Post Oak Credit II LLC, as administrative agent and collateral agent, and Atlas Credit Partners, LLC, as lender.
4. Includes \$110 million of 10-year subordinated convertible notes with 5.50% interest (which may be paid in kind), with a conversion price of \$5.75 per share, and \$45 million of non-dilutive commercial payments.



AST SpaceMobile

