

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 blue space with a bright orange arc of light curving across the top right.

AST SpaceMobile

Transforming how
the world connects

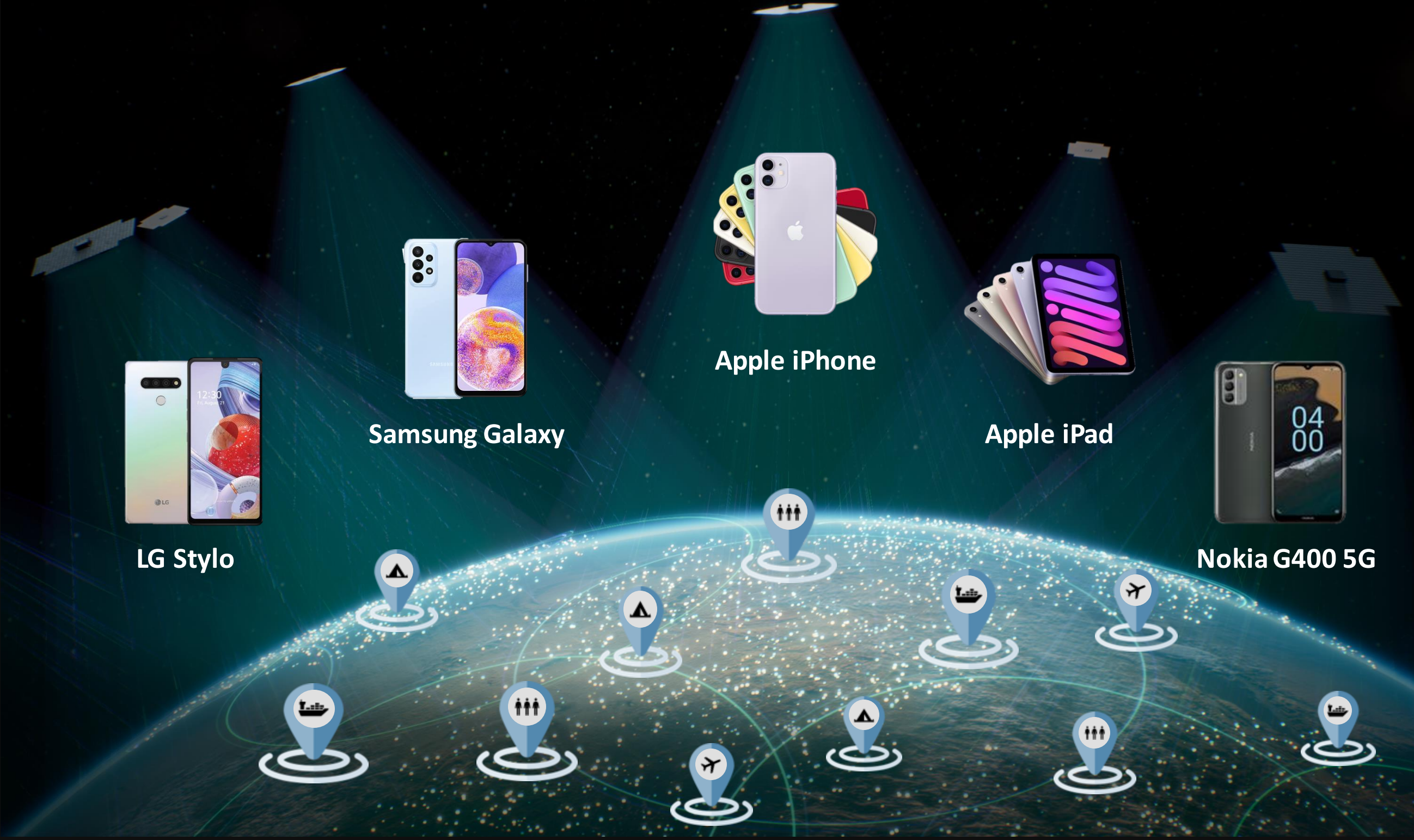
Direct to existing unmodified handsets

Vikram Raval – Global Head of Regulatory Affairs

BEREC 22 May 2024

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

Everyday smartphones from all major brands have communicated with BW3



Phones ■ Devices **DIRECT-TO-DEVICE** Wearables ■ IoT
UNMODIFIED ■ *STANDARD* ■ *EXISTING SPECTRUM*

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 **3,100+ patent and patent-pending claims**



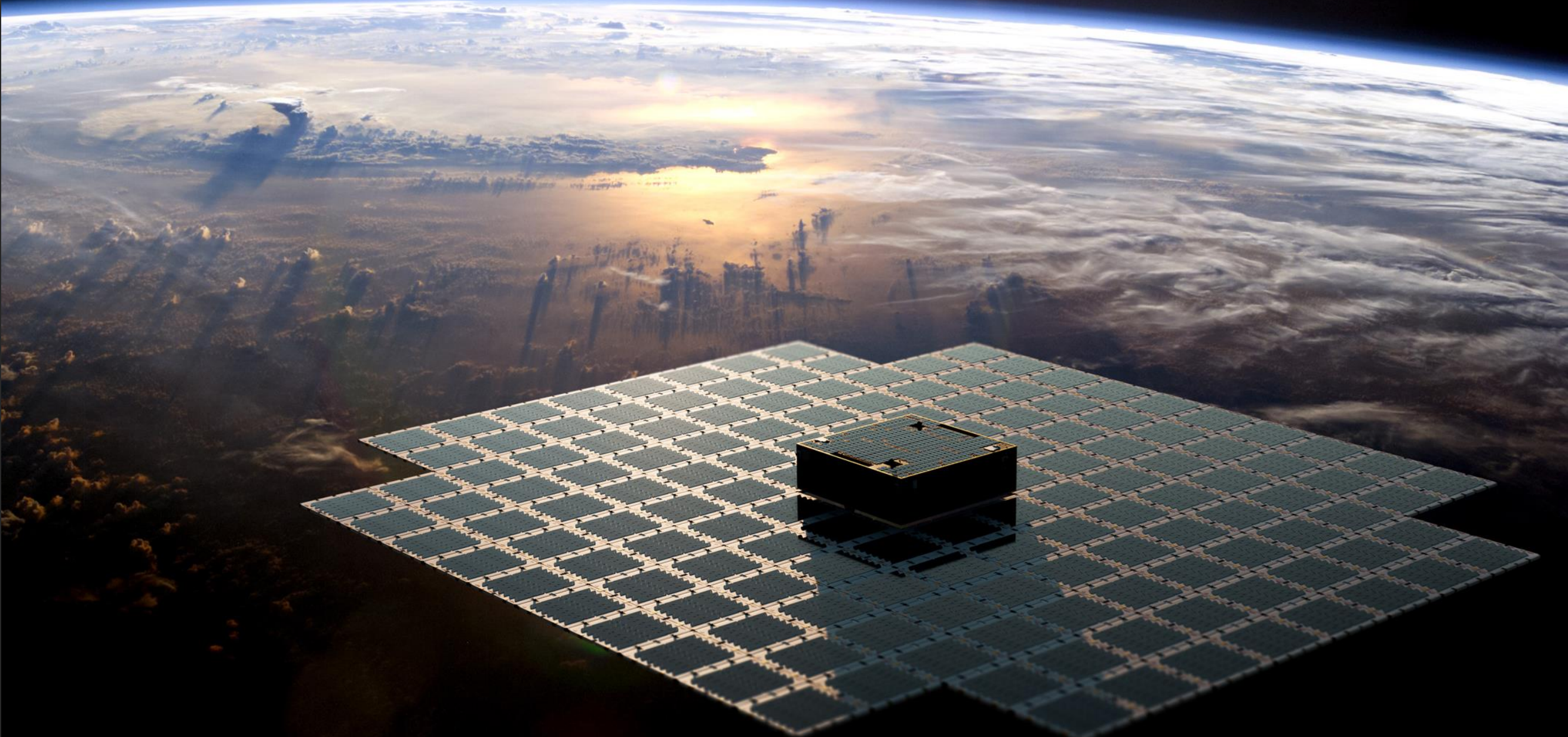
Signed agreements and understandings with **40+ mobile network operators** with **2+ billion existing subscribers**



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

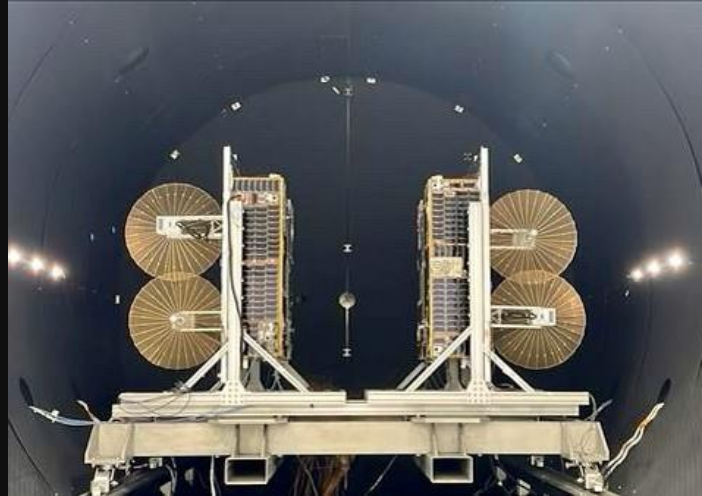


Announced **strategic investment** from **AT&T, Google and Vodafone** to support the commercial roll-out of AST SpaceMobile's network



Key highlights

- On target for July or August delivery of 5 Block 1 satellites to Cape Canaveral
- Signed milestone, 6-year definitive commercial agreement with AT&T for SpaceMobile Service
- First 5 satellites allow U.S. nationwide non-continuous service with 5,600+ cells in premium low-band spectrum
- Activities and discussions with government regulatory bodies, including FCC, are advancing as expected
- Continue to advance discussions with additional strategic partners, following the blueprint of commercial payments alongside commercial agreements



Two ControlSats under Thermal Vacuum Chamber (TVAC) testing



Trailer to transport satellites from Midland to Cape Canaveral



Milestone 6-year commercial agreement

Update on industrialization of our patented technology

We continue to invest in our facilities in Texas and around the world, as we ramp up initial manufacturing and assembly lines for the BlueBird-1 and -2 satellites

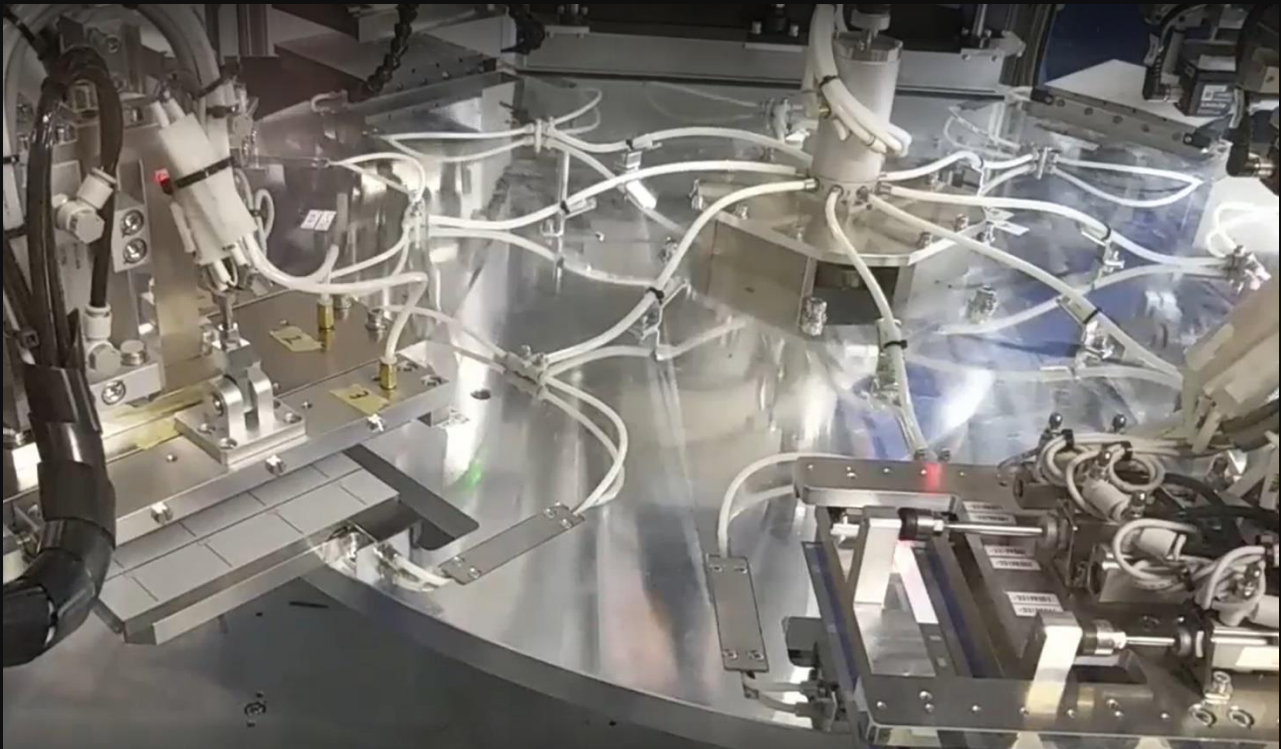
Headquarters



Site 2



Manufacturing:
Midland, TX



Satellite Operations:
Lanham, MD



Abel Avellan CEO, Chairman, Founder and UN Broadband Commissioner



Mr. Avellan is AST's Chairman, founder and Chief Executive Officer since its inception in 2017. Prior to founding AST, Mr. Avellan served as the founder and Chief Executive Officer of Emerging Markets Communications (EMC), a satellite-based communications services provider to maritime and other mobility markets, from 2000 until its sale for \$550 million in July 2016. Mr. Avellan has over 25 years of success in the space industry and is an inventor on 24 U.S. patents. He was the recipient of the Satellite Transaction of the Year award by Euroconsult in 2015 and was named Satellite Teleport Executive of the Year in 2017. A proud United States citizen, Mr. Avellan resides in Florida with his family.

The world's first and only space-based broadband network for standard cellular devices

- Partners with nationally licensed MNOs to extend their existing terrestrial infrastructure using the MNO's already allocated spectrum
- Fill coverage gaps
- MNO uses their already licensed spectrum
- End users purchase the service from the MNO partner
- Revenue share model with MNO

Market based pricing even in low ARPU markets

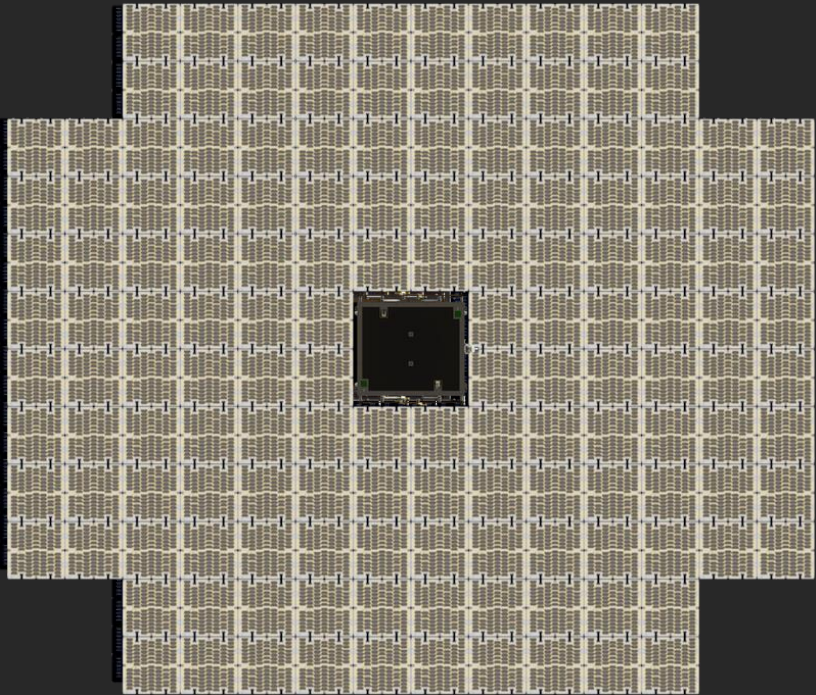
5G

4G

2G

Superior space-based low-latency broadband architecture

SpaceMobile will offer connectivity from low Earth orbit, akin to cell towers in space



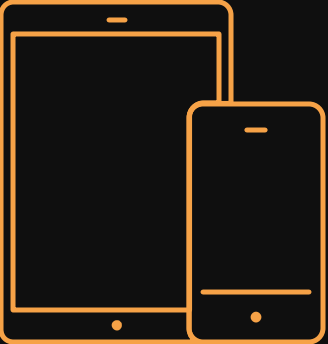
Satellites at 500-700km altitude offer low-latency and attractive look angles

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

Low- and mid-band frequencies shared with wireless partners 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

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



[Click here](#) for a video memorializing the 5G connection and other testing milestones using 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



June 2023

4G LTE Voice Calls

10 Mbps Data Rate

Using AT&T cellular spectrum, we connected everyday smartphones to our BlueWalker 3 test satellite and recorded 4G LTE download speeds of 10+ Mbps



September 2023

5G Voice Calls

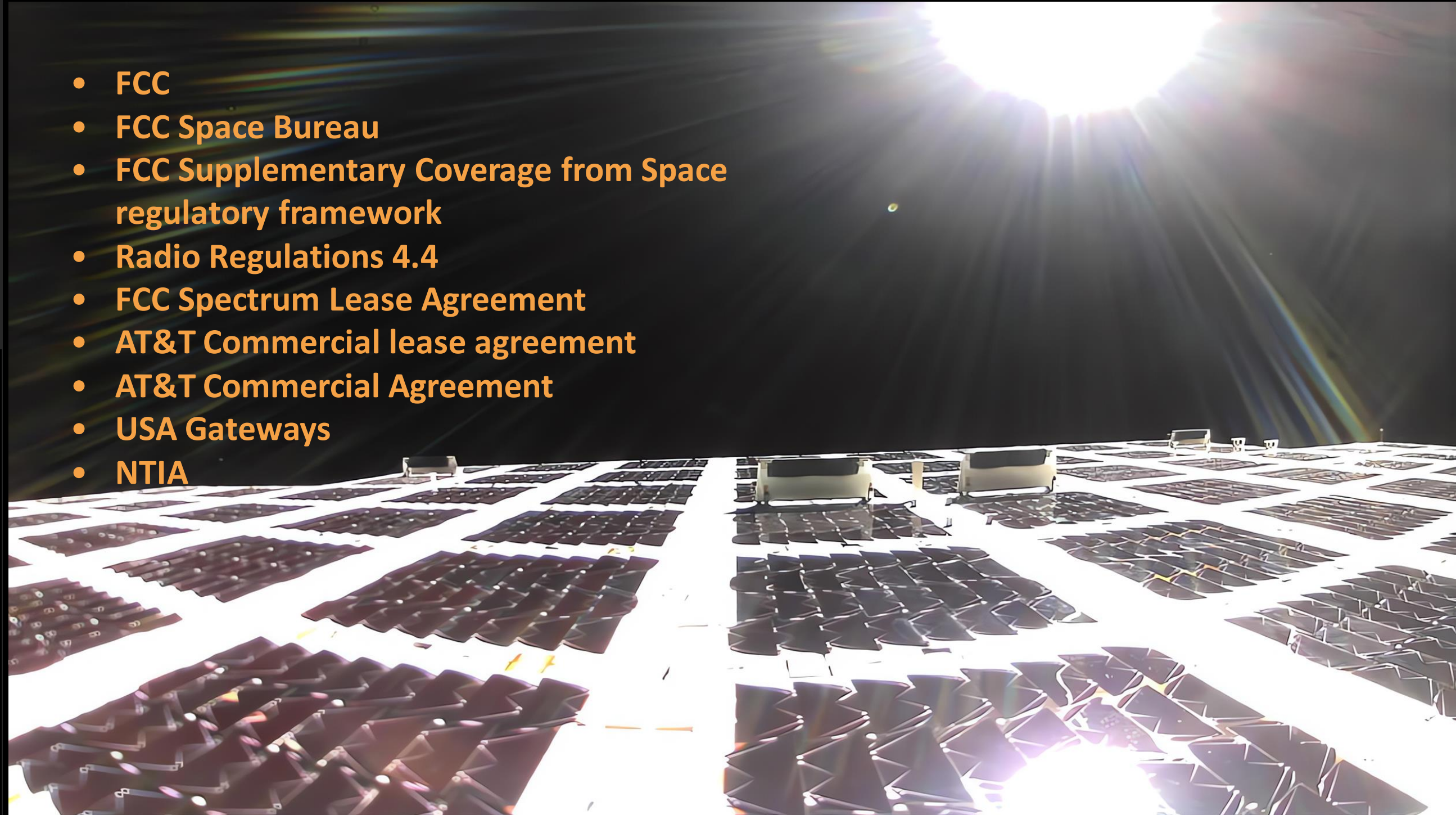
14 Mbps Data Rate

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

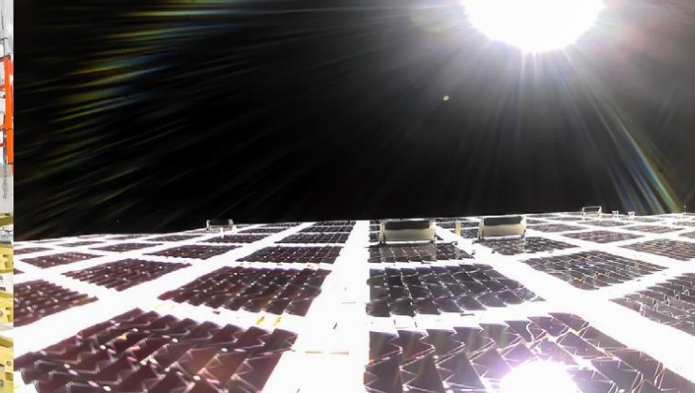


- USA and FCC Regulatory – overcoming challenges

- FCC
- FCC Space Bureau
- FCC Supplementary Coverage from Space regulatory framework
- Radio Regulations 4.4
- FCC Spectrum Lease Agreement
- AT&T Commercial lease agreement
- AT&T Commercial Agreement
- USA Gateways
- NTIA



- Mobile Broadband & Unserved rural areas
- Emergency users - FirstNet
- Disaster recovery
- IOT
- Health
- Education
- Accelerate digital transformation
- UN Sustainable Development Goals



AST
SpaceMobile

