

Application: 4638

Block 1 BlueBird Direct-to-Cell Satellites

Page: General Information

Provide information about the company to be considered for the award. If you will be nominating an individual, specify the nominee's employer.

Name of Organization/Company

AST SpaceMobile

Additional Contacts

I would also like to have others receive emails about the disposition of our entries.

Page: Entry Information**Entry Title**

Block 1 BlueBird Direct-to-Cell Satellites

Category

I04. Technology Breakthrough of the Year - Communication Technology

Technology Breakthrough of the Year Submission Format

Written Answers

a. Briefly describe the organization that achieved the nominated technology breakthrough: its history and past performance (up to 200 words). Required

Founded in 2017 by industry veteran Abel Avellan, AST SpaceMobile is building the world's first space-based cellular broadband network. Headquartered in Midland, Texas, our mission is to eliminate connectivity gaps, especially in underserved areas, and enable cellular consumers to stay connected seamlessly wherever they are — by foot, on the road, at sea, and in flight.

AST SpaceMobile's Advantages:

- Direct-to-Device technology: Works with existing phones, no modifications needed.
- Over \$1 billion in funding: Backed by major players like AT&T, Google, Verizon, and Vodafone.
- Global reach: Agreements with over 45 mobile network operators who collectively have 2.8 billion subscribers.
- Publicly traded: Listed on NASDAQ as ASTS.

Pioneering Technology:

- BlueWalker 3 (BW3): A highly successful test satellite with a 693-square-foot antenna array, the largest commercial communications array ever deployed in low Earth orbit (LEO).
- BlueBird satellites: Planned commercial launch by September 30, 2024, to provide global mobile broadband access.

Impact:

- Potential to close the connectivity gaps for over 5 billion mobile subscribers.
- Could bring first-ever cellular broadband coverage to the 2.6 billion people globally without internet access.

b. Outline the nominated technology breakthrough. Be sure to describe it in terms that someone with limited knowledge of the technology can understand and appreciate (up to 250 words). Required

Technological Breakthroughs:

- **BlueWalker 3 Launch & Operation:** Successfully built, launched, tested, and operated BW3, the largest commercial communications array in LEO in 2022.
- **First Space-Based Cellular Broadband Connectivity:** Achieved the world's first space-based 2G, 4G LTE, and 5G connectivity directly with standard smartphones in 2023, demonstrated with historic voice calls, video calls, and high-speed data sessions.
- **Next-Generation Network:** Each commercial Block 1 BlueBird satellite will have about 10 times the data capacity of BW3, enabling full broadband cellular service, and the Next Generation Bluebirds are planned to have 100 times the capacity of BW3.

Strategic Growth:

- **Major Investments Secured:** Secured more than \$250 million in funding from industry leaders like AT&T, Google, Verizon, and Vodafone.
- **Expanded Partnerships:** Established agreements with 45+ mobile network operators around the world who together serve over 2.8 billion subscribers.

Impact:

AST SpaceMobile's technology has the potential to revolutionize global connectivity by:

- Delivering cellular broadband access to more than 2.6 billion people without internet access.
- Closing the cellular coverage gap for over 5 billion mobile subscribers in underserved areas.
- Providing a cost-effective solution for remote locations by eliminating the need for traditional cell towers.

These achievements position AST SpaceMobile as a leader in space-based cellular technology, poised to bridge the digital divide and empower billions with the benefits of a connected world.

c. Explain why the technology breakthrough you have highlighted is unique or significant (up to 250 words). Required

AST SpaceMobile's achievements represent the first space-based cellular broadband technology that works directly with unmodified smartphones:

- Our approach is unconventional yet elegant. We are not developing proprietary phones or complex satellite constellations; instead, we are building a network of large, high-performance satellites to be deployed in LEO, equipped with powerful phased-array antennas. These "space-based cell towers" are designed to mimic traditional ground-based infrastructure.
- Backed by more than 3,400 patent and patent-pending claims, our breakthrough technology enables seamless connectivity even in the most remote locations, where cell towers are too costly and impractical to site, build, power, and maintain.
- A relatively small fleet of [REDACTED] BlueBird satellites [REDACTED FOR PUBLICATION] [REDACTED] could help close coverage gaps for billions of people worldwide, plus bring internet access to areas where billions of people have none. About 45-60 satellites should provide continuous service in the U.S., and we've already set up commercial agreements and received prepayments from some of the largest cellular operators on Earth.
- The ability to provide such connectivity represents a paradigm shift in telecommunications. Such access would democratize access to information, create opportunities for more people to join the global economy, and build vital bridges of communications around the world.
- Distinctions from Fast Company's 2023 Next Big Things in Tech and the 2023 Mobile Breakthrough Award for Broadband Innovation of the Year underscore AST SpaceMobile's leadership and innovative prowess in the space and telecommunications sectors.

d. Reference any attachments of supporting materials throughout this nomination and how they provide evidence of the claims you have made in this nomination (up to 250 words). Optional

The following materials that validate AST SpaceMobile's claims, including news stories, press releases, awards, and videos. Together, these references provide robust evidence of AST SpaceMobile's technological breakthroughs and their significance in advancing global connectivity.

1. A video interview with journalist Fareed Zakaria demonstrates the revolutionary nature of AST's technology directly from the CEO, Abel Avellan:

https://www.youtube.com/watch?v=z8u0hz_9TVs&ab_channel=ASTSpaceMobile

2. A press release on Avellan's appointment to the ITU/UNESCO Broadband Commission highlights his recognized expertise and leadership in the field:

<https://feeds.issuereirect.com/news-release.html?newsid=7119872776670510>

3. Fast Company's "Next Big Things in Tech" and Mobile Breakthrough Awards attest to the industry's acknowledgment of AST SpaceMobile's innovations:

<https://www.fastcompany.com/90979324/next-big-things-tech-space-telecom-2023>

<https://mobilebreakthroughawards.com/2023-winners/>

4. A video of the BlueWalker 3 test satellite's assembly, launch, and deployment, paired with video of 4G/5G connectivity testing footage, show proof of the groundbreaking technology AST SpaceMobile has pioneered:

<https://www.youtube.com/watch?v=jgMEJtFpadw>

<https://www.youtube.com/watch?v=5SHEWwYw7EE>

5. A press release about a contract award with the U.S. government shows the broad potential use and customer base for AST SpaceMobile's invention:

<https://feeds.issuereirect.com/news-release.html?newsid=6206204691512993>

6. Announcements of strategic investments by AT&T, Google, Verizon, and Vodafone, plus a commercial agreement with AT&T, underscore the intense and authentic interest in AST SpaceMobile's revolutionary communications capabilities:

<https://www.businesswire.com/news/home/20240118463570/en/AST-SpaceMobile-Secures-Strategic-Investment-From-ATT-Google-and-Vodafone>

<https://about.att.com/story/2024/ast-spacemobile-commercial-agreement.html>

<https://www.cNBC.com/2024/05/29/ast-spacemobile-verizon-satellite-internet.html>

Webpage Link

https://www.youtube.com/watch?v=z8u0hz_9TVs&ab_channel=ASTSpaceMobile (https://www.youtube.com/watch?v=z8u0hz_9TVs&ab_channel=ASTSpaceMobile)

Would you like to add an additional webpage link?

Yes

Webpage Link 2

<https://feeds.issuierdirect.com/news-release.html?newsid=7119872776670510> (<https://feeds.issuierdirect.com/news-release.html?newsid=7119872776670510>)

Would you like to add an additional webpage link?

Yes

Webpage Link 3

<https://www.fastcompany.com/90979324/next-big-things-tech-space-telecom-2023>
(<https://www.fastcompany.com/90979324/next-big-things-tech-space-telecom-2023>)

Would you like to add an additional webpage link?

Yes

Web Page Link 4

<https://mobilebreakthroughawards.com/2023-winners/> (<https://mobilebreakthroughawards.com/2023-winners/>)

Would you like to add an additional webpage link?

Yes

Web Page Link 5

<https://www.youtube.com/watch?v=jgMEJtFpadw> (<https://www.youtube.com/watch?v=jgMEJtFpadw>)

Would you like to add an additional webpage link?

Yes

Web Page Link 6

<https://www.youtube.com/watch?v=5SHEWwYw7EE> (<https://www.youtube.com/watch?v=5SHEWwYw7EE>)

Would you like to add an additional webpage link?

Yes

Web Page Link 7

<https://feeds.issuierdirect.com/news-release.html?newsid=6206204691512993> (<https://feeds.issuierdirect.com/news-release.html?newsid=6206204691512993>)

Would you like to add an additional webpage link?

Yes

Web Page Link 8

<https://www.businesswire.com/news/home/20240118463570/en/AST-SpaceMobile-Secures-Strategic-Investment-From-ATT-Google-and-Vodafone> (<https://www.businesswire.com/news/home/20240118463570/en/AST-SpaceMobile-Secures-Strategic-Investment-From-ATT-Google-and-Vodafone>)

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Web Page Link 9

<https://about.att.com/story/2024/ast-spacemobile-commercial-agreement.html> (<https://about.att.com/story/2024/ast-spacemobile-commercial-agreement.html>)

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<https://www.cnbc.com/2024/05/29/ast-spacemobile-verizon-satellite-internet.html>
(<https://www.cnbc.com/2024/05/29/ast-spacemobile-verizon-satellite-internet.html>)

Supporting Document

No File Uploaded

Would you like to add an additional supporting document?

No

By your submission of this entry to The Stevie Awards, you verify that you have read and agreed to abide by the regulations, terms and conditions of the competition (<https://www.asia.stevieawards.com/rules-and-terms-conditions-competition>).

Terms and Conditions

I Agree