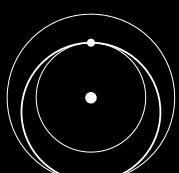


PROGRESS
2025



STARLINK

EXPANDING BOUNDARIES





One-third of humanity remains offline. Many more only have basic connectivity, which is often slow, intermittent, and unaffordable.

Starlink is committed to closing the digital divide and quickly expanding access to high-speed internet all around the world, especially for those in rural and remote areas.

After just five years of commercial service, Starlink is connecting more than 9 million customers on land, in the air, and at sea across all seven continents.

In 2025 alone, we connected more than 4.6 million new active customers with high-speed internet and expanded service to 35 additional countries, territories and other markets around the world.

And with the completion of our first-generation Direct to Cell network, Starlink took its promise of reliable connectivity a step further, offering voice, video, and messaging services via data direct to unmodified cell phones.





New Markets Activated in 2025:

35+

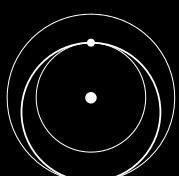
New Customers in 2025:

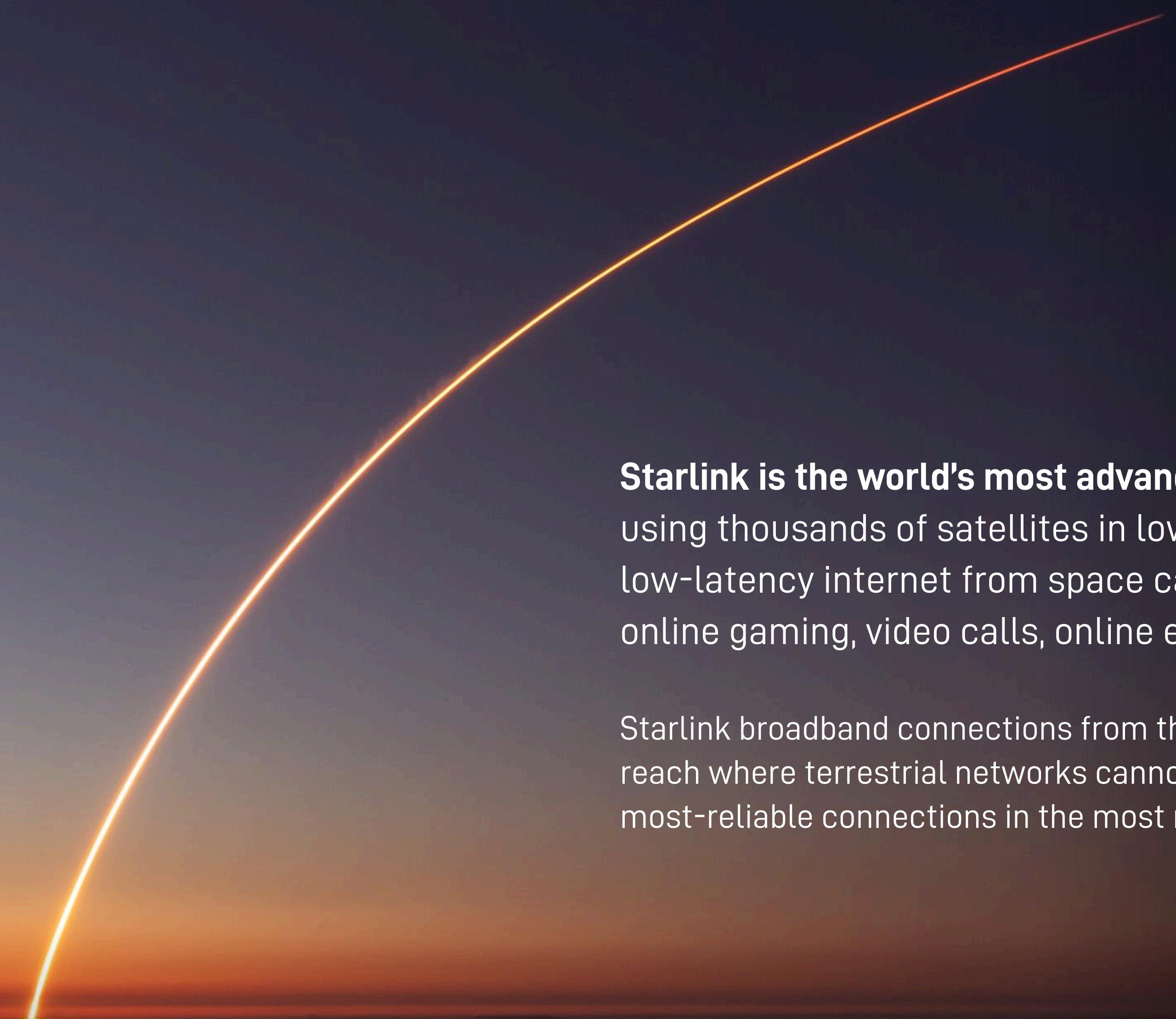
4.6M+



STARLINK

EXPANDING COVERAGE





Starlink is the world's most advanced satellite constellation
using thousands of satellites in low-Earth orbit to deliver high-speed,
low-latency internet from space capable of supporting 4K streaming,
online gaming, video calls, online education, and more.

Starlink broadband connections from the low-Earth orbit satellite fleet effortlessly reach where terrestrial networks cannot, with Starlink often providing the fastest, most-reliable connections in the most remote and rural areas around the world.



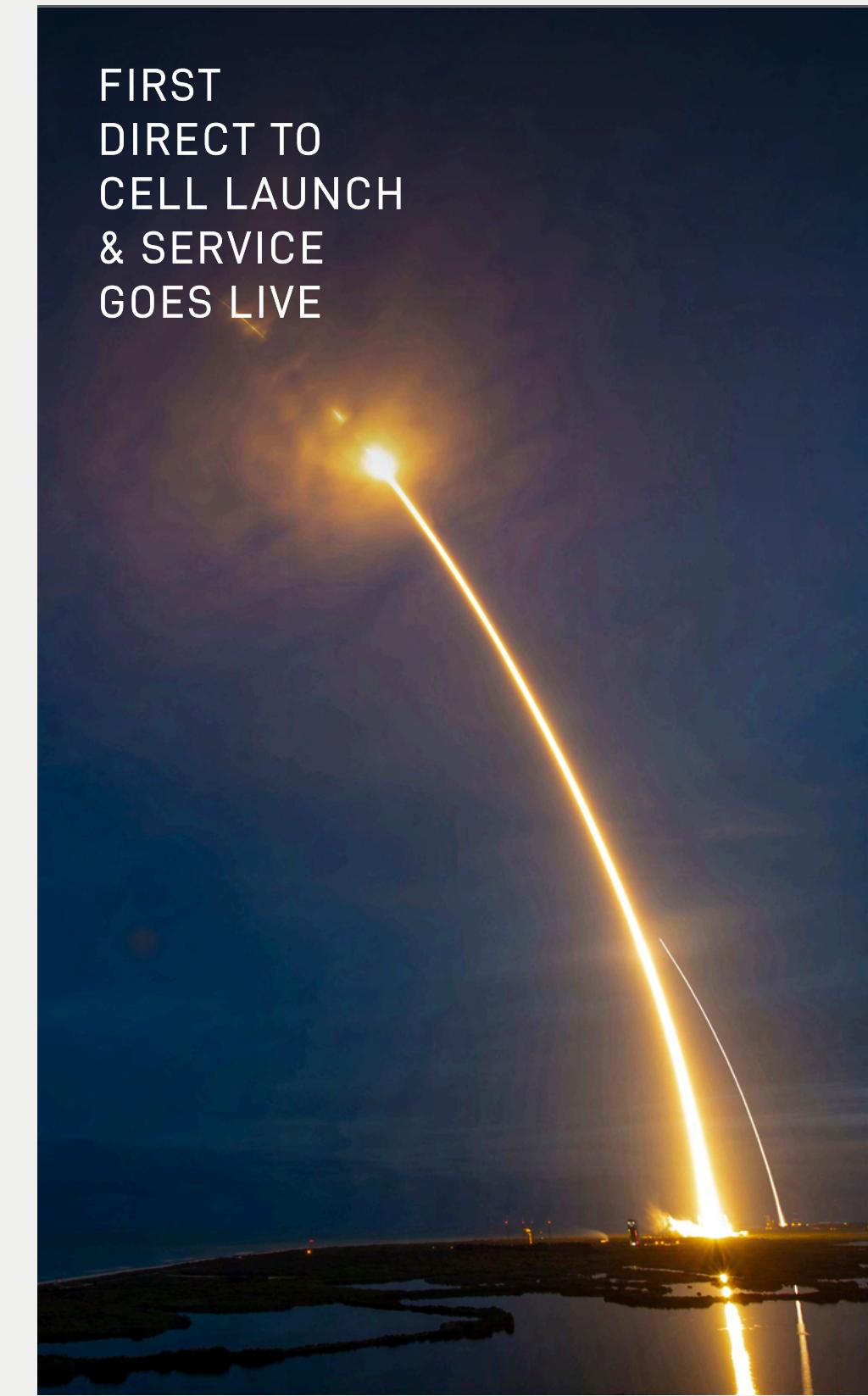
2019



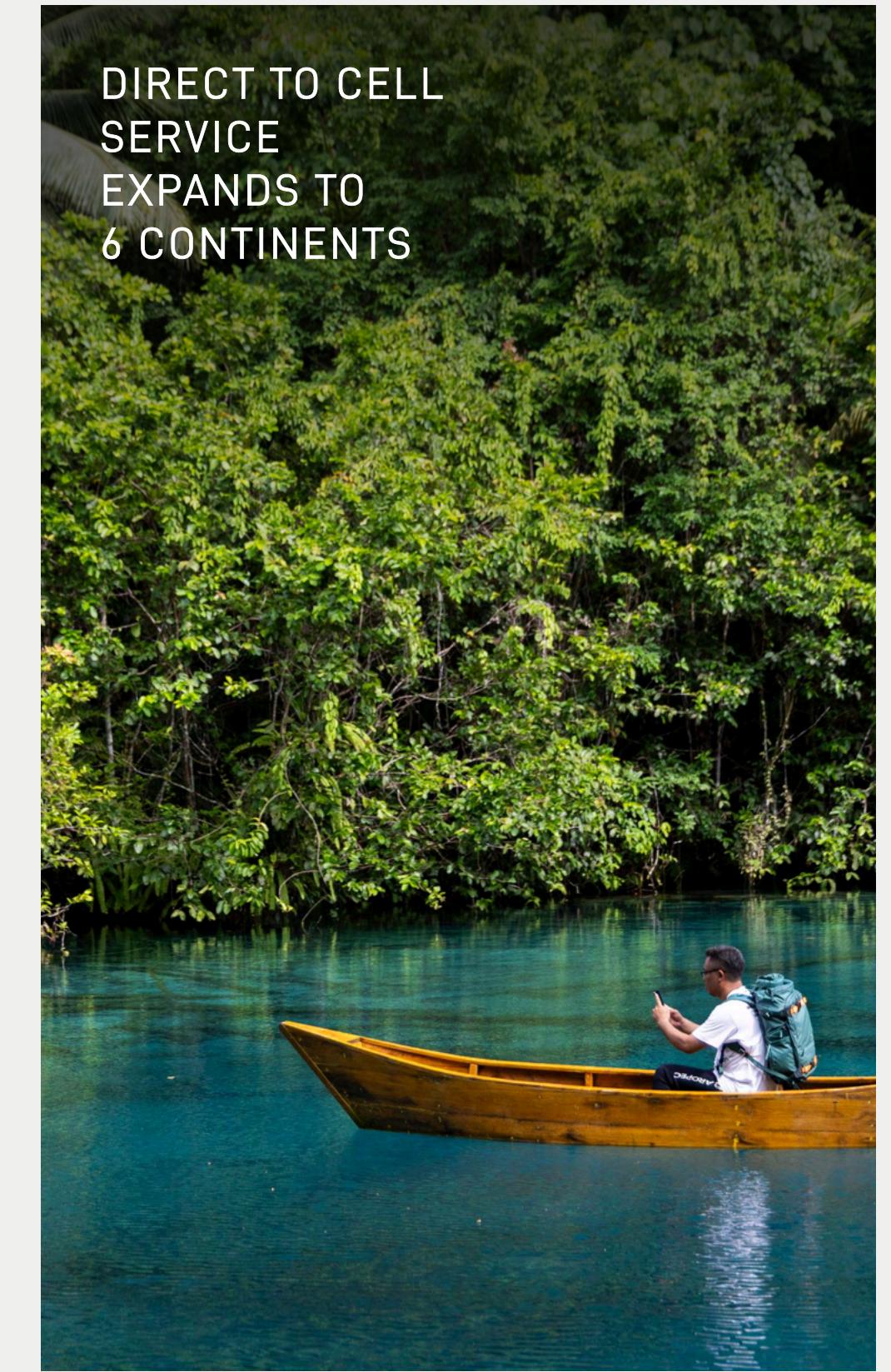
2020



2024



2025



SpaceX has now completed more than **300 dedicated Falcon 9 launches** for Starlink. Each launch adds useable capacity to the network to meet the growing needs of the 3.2 billion people who have access to Starlink—no matter where on or off the Earth they are.



ACTIVE STARLINK
SATELLITES

9K+



AIRLINE PASSENGERS
SERVED

21M+



CUSTOMERS

9M+



CRUISE PASSENGERS
SERVED

20M+



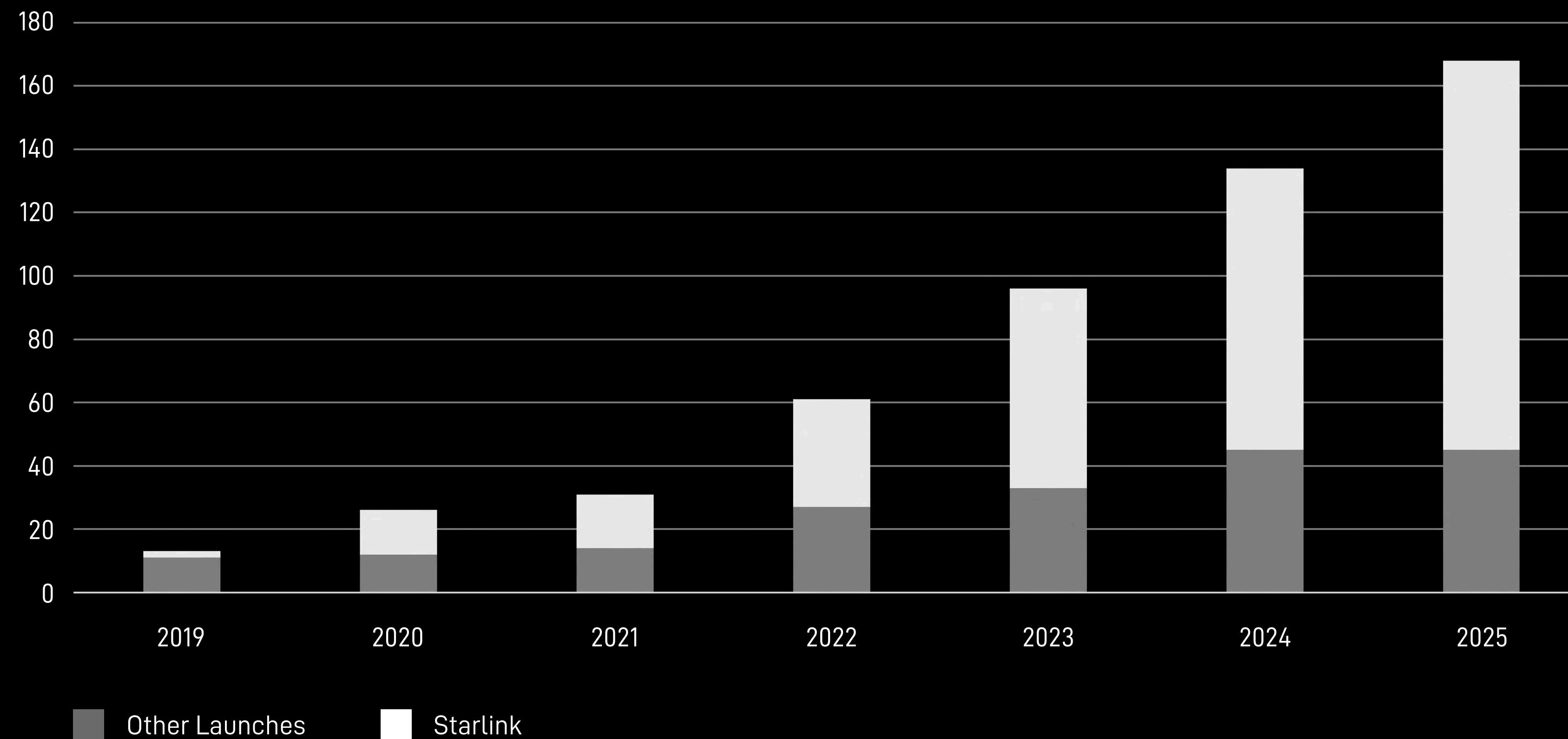
COUNTRIES & MARKETS

155+



FALCON LAUNCH RATE

THROUGH 2025



■ Other Launches

■ Starlink



LAUNCHING ADDITIONAL CAPACITY



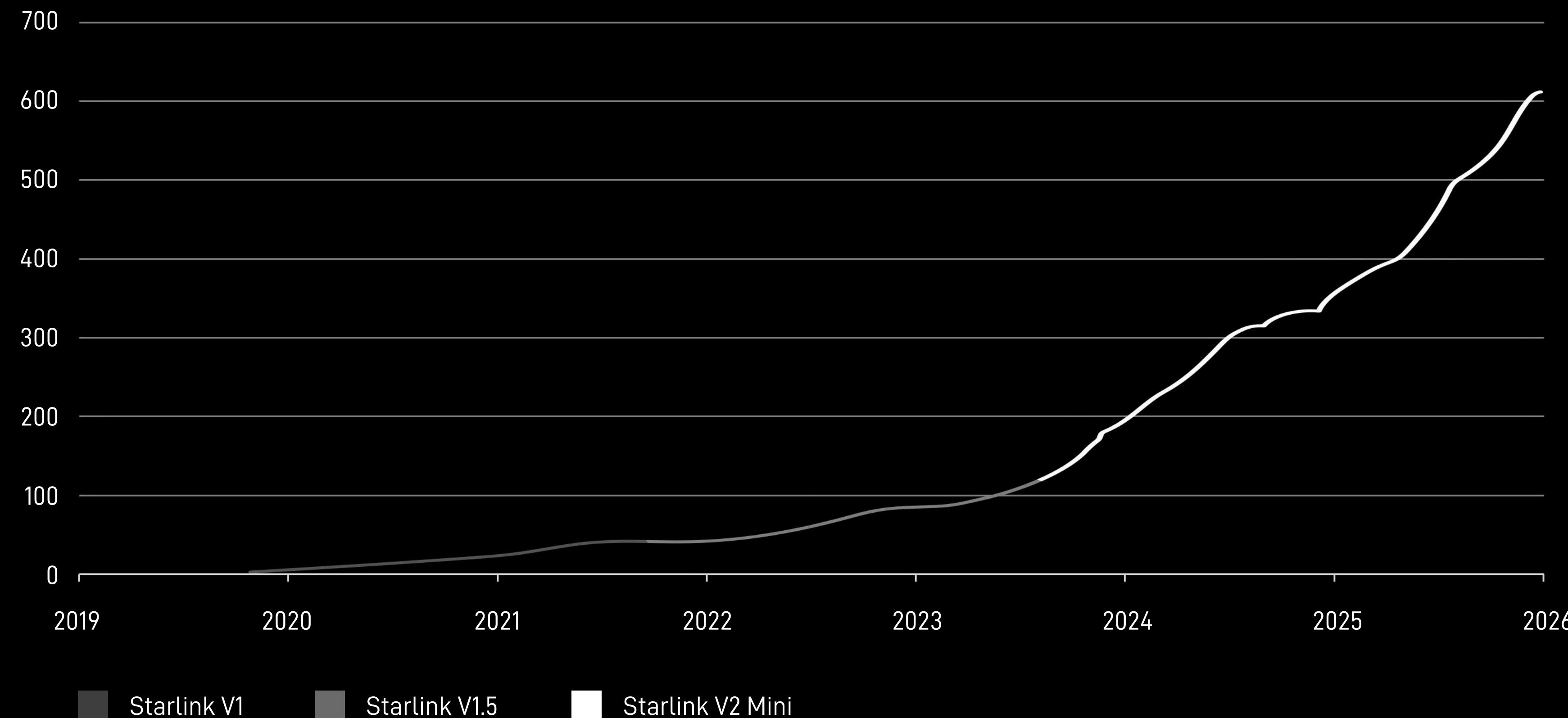
In 2025, SpaceX launched more than 120 Falcon 9 missions dedicated to deploying our most-advanced Starlink V2 Mini satellites. With enhancements to the V2 Mini satellite design, we began launching more satellites on each Starlink mission, adding more than 270 Tbps of capacity to the constellation this year.

SpaceX's ability to add substantial capacity to the network so quickly is a result of Starlink's vertical manufacturing for satellite production and our relentless commitment to recovering and reusing Falcon 9 first stage boosters and payload fairings.



STARLINK CAPACITY LAUNCHED

CUMULATIVE CAPACITY (TBPS)



Starlink V1

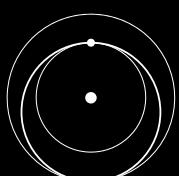
Starlink V1.5

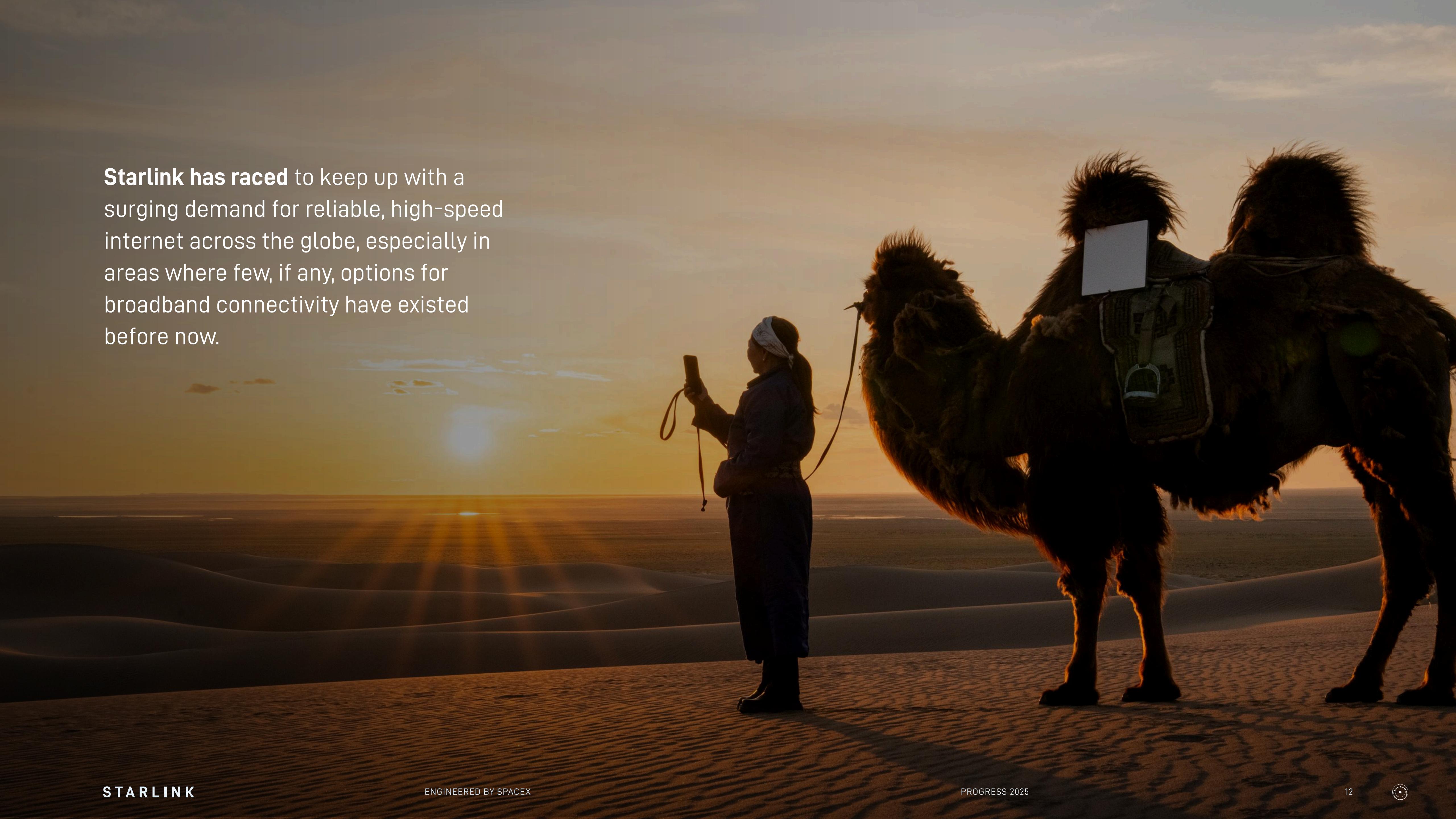
Starlink V2 Mini



STARLINK

EXPANDING ACCESS





Starlink has raced to keep up with a surging demand for reliable, high-speed internet across the globe, especially in areas where few, if any, options for broadband connectivity have existed before now.

PROGRESS FOR EMERGENCY SERVICES

SpaceX maintains a simple policy during natural disasters: no one should profit from misfortune. When a community is impacted, Starlink provides free service to all customers in the affected area—including those with suspended accounts—as well as to new customers who activate a kit for the first time during the crisis. This ensures that anyone who needs connectivity for safety, communication, or recovery can access it immediately and without cost.

In 2025, Starlink enabled critical communications for local officials, first responders, relief personnel, and people directly affected by several natural disasters, including devastating wildfires in California and Canada, deadly floods in Texas and Argentina, and several cyclones and hurricanes.





PROGRESS FOR

01

HURRICANE RELIEF EFFORTS

When Hurricane Melissa made landfall in Jamaica as a record-breaking category five hurricane, the storm had devastating effects across the island's western region. Communications were badly impacted, as internet service, cell networks, and emergency radio stations went offline. In response to the disaster, SpaceX rapidly deployed nearly 1,000 donated Starlink kits to the Caribbean, including over 900 to support the Jamaican government and relief organizations.

First responders and humanitarian agencies used the kits to enable a variety of critical functions, including aid –

distributions, logistics, field assessments, emergency medical services, community WiFi, network backhaul, and air-to-ground communication. Starlink also provided free service to all residential customers in Jamaica and The Bahamas for over a month, allowing more than 21,000 account holders to connect free of charge.

SpaceX concurrently worked with local mobile network operators and Jamaican regulators to activate Direct to Cell service across the island nation for their customers. In the first month of activation, Direct to Cell service enabled users to send and receive over 1.1 million SMS messages from areas without cell service.





PROGRESS FOR

02

WILDFIRE RELIEF EFFORTS

When two deadly wildfires devastated parts of Los Angeles, SpaceX coordinated the delivery of thousands of free Starlink kits to first responders, emergency coordinators, and people directly impacted. This ensured that vital emergency response and personal communications remained available to those in need.





PROGRESS FOR

03

UNEXPECTED POWER AND FIBER OUTAGES

During the April 2025 power outage in Spain and Portugal, Starlink remained functional throughout the outage and saw a surge in demand after traditional terrestrial networks failed. Starlink customers were able to power their Starlink kits using portable power stations or other backups to remain connected. Starlink satellites used their laser links to maintain connectivity in the affected area by re-routing traffic through ground stations in other parts of Europe that were unaffected by the outage.

This year also saw cuts to subsea fiber lines that are vital for the flow of information around the world. Broken fiber lines cause significant disruptions to regional and global internet traffic. SpaceX's Starlink constellation serves as a resilient backup with the satellites using their laser links to route traffic between satellites and down to unaffected ground stations, maintaining essential communication services.

In Nome, Alaska, the isolated town's Community Gateway was critical in keeping critical infrastructure connected when a submarine fiber connection to the area broke in January and weather conditions precluded attempts to repair the line for several months.





PROGRESS FOR

04

STUDENTS

In 2025, Starlink connected more than 6 million students worldwide through various initiatives led by individuals, companies and educational organizations. For students in remote, underserved, or connectivity-challenged areas, Starlink has unlocked access to online learning, real-time collaboration tools, global scholarships, and career resources, all of which aid in sparking curiosity and growth.



For Sylvia Morrison, Founder and Director of the Links Across Borders non-profit that creates libraries and educational programs in Ghana, "The internet opens up the world for everybody." Through Links Across Borders, more than 22,000 students across 85 schools in Ghana this year were connected to high-speed internet, helping to shrink the digital divide.





PROGRESS FOR

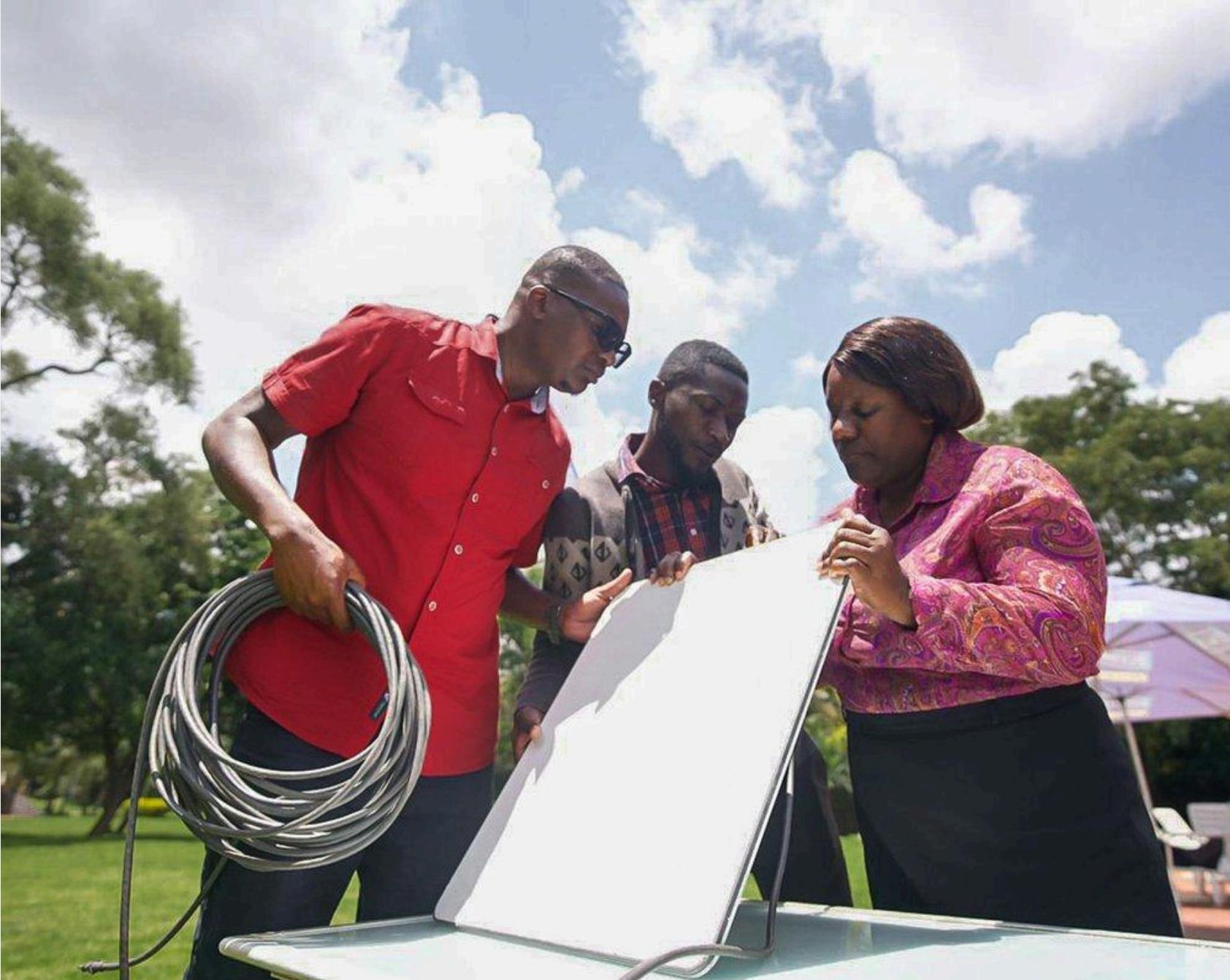
05

SCHOOLS IN THE BAHAMAS

This past summer, SpaceX donated hundreds of Starlink kits to schools in The Bahamas, and now Starlink is being installed in ~200 schools across nine islands including, Exuma, Grand Bahama, New Providence, and Mayaguana, connecting more than 40,000 students to reliable internet. Some schools previously had no internet, with many schools experiencing intermittent blackouts that impact students' abilities to stay connected and learn.

Starlink is bolstering their internet speeds to 200-350mbps, which is improving the quality of connectivity for schools even in the most remote areas and supporting the country's online programs to increase digital learning.





PROGRESS FOR

06

HEALTHCARE

In remote Shiwang'andu, Zambia, Dr. Mwansa Chanda's clinic serves 5,000 people across rugged terrain with no reliable internet. Before Starlink, telemedicine and supply tracking were impossible, patients travelled hours for care, and people dealing with emergencies risked deadly delays.

That changed mid-2025 when Smart Zambia and the United Nations Development Programme deployed Starlink under the Smart Health Systems project.



Dr. Chanda's clinic became one of the first connected sites, instantly enabling routine virtual consultations with Lusaka specialists and powering 100,000 remote medical sessions annually across similar facilities.

Starlink is now in 600 Health Clinics in Zambia, enabling a more than 40% reduction in patient wait times in Starlink-enabled facilities and connecting over 18,000 healthcare professionals across the country.





PROGRESS FOR

07

AGRICULTURE

Approximately 60% of farmers and ranchers in the U.S. do not feel they have adequate internet connectivity to run their businesses, which contribute nearly \$133 billion to the U.S. gross domestic product.

John Deere is leveraging Starlink to deliver satellite-based internet connectivity to farmers. This industry-first collaboration integrates Starlink's low-Earth orbit satellite network with John Deere's precision agriculture technologies, branded as JDLink™ Boost.

Starlink terminals and 4G LTE modems installed on compatible John Deere machines enable seamless connectivity to the John Deere Operations Center for real-time data sharing, remote diagnostics, and autonomous operations. This year, we also added two more agricultural partners, Stara and CNH.





PROGRESS FOR

08

CROP FARMERS

For Fernando, a farmer from Taquaritinga, Brazil, who runs an agricultural business with his two brothers, Starlink solved a problem that once seemed impossible. After trying other internet solutions, none of which were satisfactory, they became early adopters of Starlink in their region in July 2022. This year, they were able to shift several administrative tasks directly to the farm's headquarters—benefiting both workers and their families.



Starlink has transformed the farm's daily operations, with positive impacts felt across every hectare—from bringing internet access to workers' homes to optimizing the use of agricultural inputs in the field.

"Now I can manage banking tasks, request quotes, place online orders, sign documents electronically, and join meetings via video call. It has brought a huge gain in productivity,"

– Fernando, Taquaritinguense Farmer





PROGRESS FOR

09

COFFEE FARMERS

For artisan coffee farmers in Santo Antônio da Alegria, Brazil, Starlink's connectivity is allowing them to dedicate more time and attention to their craft. With reliable, high-bandwidth, low-latency internet, the owners of Luciana Farm have been able to ditch their previous internet that was received via radio and transform their operations with automation, real-time communications, enhanced security, and improved crop productivity.





PROGRESS FOR

10

REMOTE COMMUNITIES

Starlink is keeping Canadian dog sledders connected during extended hunting expeditions on the ice. For those living in the extreme northern regions of Canada, including isolated islands surrounded by sea ice, Starlink is a lifeline back to family and their communities during multi-day hunts.





PROGRESS FOR

11

REMOTE COMMUNITIES

In 2025, Starlink activated 13 new Community Gateway sites around the world, increasing the total number of Gateways supporting remote communities to 20 sites across nine countries and four continents. Community Gateway traffic transits through Starlink's global laser mesh network and utilizes Starlink's high bandwidth Gateways operating in a dedicated Ka spectrum band to deliver fiber-like speeds of 10 Gbps for upload and download. Local providers then distribute connectivity to homes, businesses, and governments using last-mile fiber, fixed wireless, and mobile wireless systems.



This year, Starlink brought the first Community Gateway online in the Galapagos Islands, providing first-of-its-kind connectivity of the isolated islands' scientists, researchers, and visitors while helping preserve the region's environment. A Community Gateway solution avoided installation of submarine cables and minimized the impact on the marine environment, helping protect the unique biodiversity of the archipelago.

"Together with Starlink, we're turning Galápagos in a regional remote connectivity reference, with an eco friendly solution which honors and protects this natural sanctuary, avoiding the construction of a submarine cable."

- Ronald Spina, General Manager of CNT EP





PROGRESS FOR

12

OFF-ROAD RACING

In Barstow, California, a competitive off-road racing team, 1 Nine Industries, prepared for the Baja 400 with Starlink. The Performance Kits deployed on their trucks and helicopter deliver high-speed internet, which is keeping racers and their teams connected in the most remote desert terrains.

Racing at 240 kph (150 mph) to complete more than 1,600 km (1,000 miles), the racers can communicate real-time issues, share stories with families and fans, and livestream the competition, which is now possible with Starlink's satellite technology. This advancement is not only an industry first for the sport but essential to winning races.





PROGRESS FOR

13

TELECOMMUNICATIONS

Rugged terrain and remote areas pose a challenge for cellular providers not only for establishing terrestrial connectivity services, but for ensuring their operation and the quality of communications as well.

For KDDI in Japan, the nation's remote islands and mountainous regions create gaps in communication quality. Constructing Base Transceiver Stations (BTS) with geostationary orbit satellite connections for backhaul service resulted in limited throughput, high latency, and reduced capacity for simultaneous connections. This left rural customers with unreliable service.

With Starlink, KDDI has revolutionized its remote connectivity strategy. Starlink's high-throughput, low-latency satellite network serves as a core enabler for rapid base station restoration—delivering 10x higher throughput to support video streaming, slashing installation time and equipment size, and enabling the nationwide deployment of over 200 vehicle-mounted and portable base stations.

Several other telecommunication providers also began integrating Starlink into their cellular backhaul networks this year to maintain network resilience, including BT Telecom, Liberty Latin America, Africa Mobile Networks, and Fast Web Italy.





PROGRESS FOR

14

ENERGY

Williams provides energy to some of the U.S.'s largest metropolitan areas, including New York City and Atlanta. The company also maintains operations in extremely remote locations, such as the deepwater Gulf and the heart of the Rockies, managing more than 17,000 equipment sites and more than 3,000 vehicles. In remote operating areas, limited connectivity has long posed a challenge for field technicians who rely heavily on mobile platforms to document their daily tasks in real time.



This year, Williams launched an initiative focused on being "Always On, Always Connected." By deploying Starlink, Williams now provides high-bandwidth, low-latency internet access directly at remote work locations—ensuring teams stay connected, productive, and safe. This advancement empowers the workforce to deliver timely, accurate documentation without leaving job sites—improving operational efficiency and reducing risk.





PROGRESS FOR

15

SPORTS BROADCASTING

This year, International Management Group (IMG), in partnership with Clarus Networks, Starlink, and LiveU, led the delivery of global live coverage of The Women's Amateur Championship—one of the most prestigious events in amateur golf. Hosted at Nairn Golf Club on Scotland's northeast coast, Nairn poses major broadcast challenges due to its remote setting, large course footprint, and the need for mobile camera coverage.

With growing global audiences and coverage delivered to over 20 international broadcasters, IMG needed a fully infrastructure-free connectivity solution. By combining Starlink satellite connectivity with IP-based remote production, the team eliminated the need for fibre, outside broadcast trucks, or Radio Frequency relays, while maintaining the production quality expected of a world-class golf event. This led to lower costs, faster set up times, and reduced impact to the environment.





PROGRESS FOR

16.1

AVIATION

In 2025, more than 1,400 commercial aircraft, including over 80 A350s, the flagship airframe in many airlines' fleets, were equipped with Starlink, which is nearly four times the number of planes on which Starlink was installed on in 2024.

Over the last year, more than 21 million passengers experienced Starlink's at-home-like internet aboard United Airlines, Hawaiian Airlines, Alaska Airlines, JSX, WestJet, Qatar Airways, Air France, Emirates, Air New Zealand, airBaltic, and more! These passengers used approximately 30 PB of data and experienced speeds of over 200 Mbps.



Multiple lightweight, high-performance Starlink antennas serve each plane. These terminals are installed in just a few hours, significantly reducing the time aircraft are out of service.





PROGRESS FOR

16.2

AVIATION

Starlink received regulatory approvals for installation on the 737-800, 737 MAX8 and MAX9, 787, A220, A320, A350, E190, E175, and CRJ550 commercial aircraft types in addition to numerous business jet type approvals. This is in addition to aircraft types already approved for Starlink service, including the A321Neo, A330, and 777.

Across the globe, United Airlines, Air France, Air New Zealand, WestJet, Alaska Airlines, and Emirates all activated their first Starlink-equipped planes this year.

And numerous airlines announced plans to install Starlink on their fleets, including Scandinavian Airlines, Virgin Atlantic, flydubai, British Airways, Aer Lingus, Iberia, LEVEL, Korean Air, Asiana Airlines, Jin Air, Air Busan, and Air Seoul.





PROGRESS FOR

16.3

AVIATION

This year, United Airlines began installing Starlink on their regional and mainline jets. The first mainline flight took place in October, with passengers on a United 737-800 aircraft experiencing Starlink's reliable, gate-to-gate connectivity for gaming, live streaming, working, and shopping across multiple devices at the same time. During the flight, the Today Show conducted a live broadcast from 30,000 ft using Starlink—a first for Starlink's in-flight connectivity.

"Whether it's catching a live game, streaming an award show, or working, United customers won't miss a beat when they're onboard a Starlink-equipped flight."

– David Kinzelman, United's Chief Customer Officer





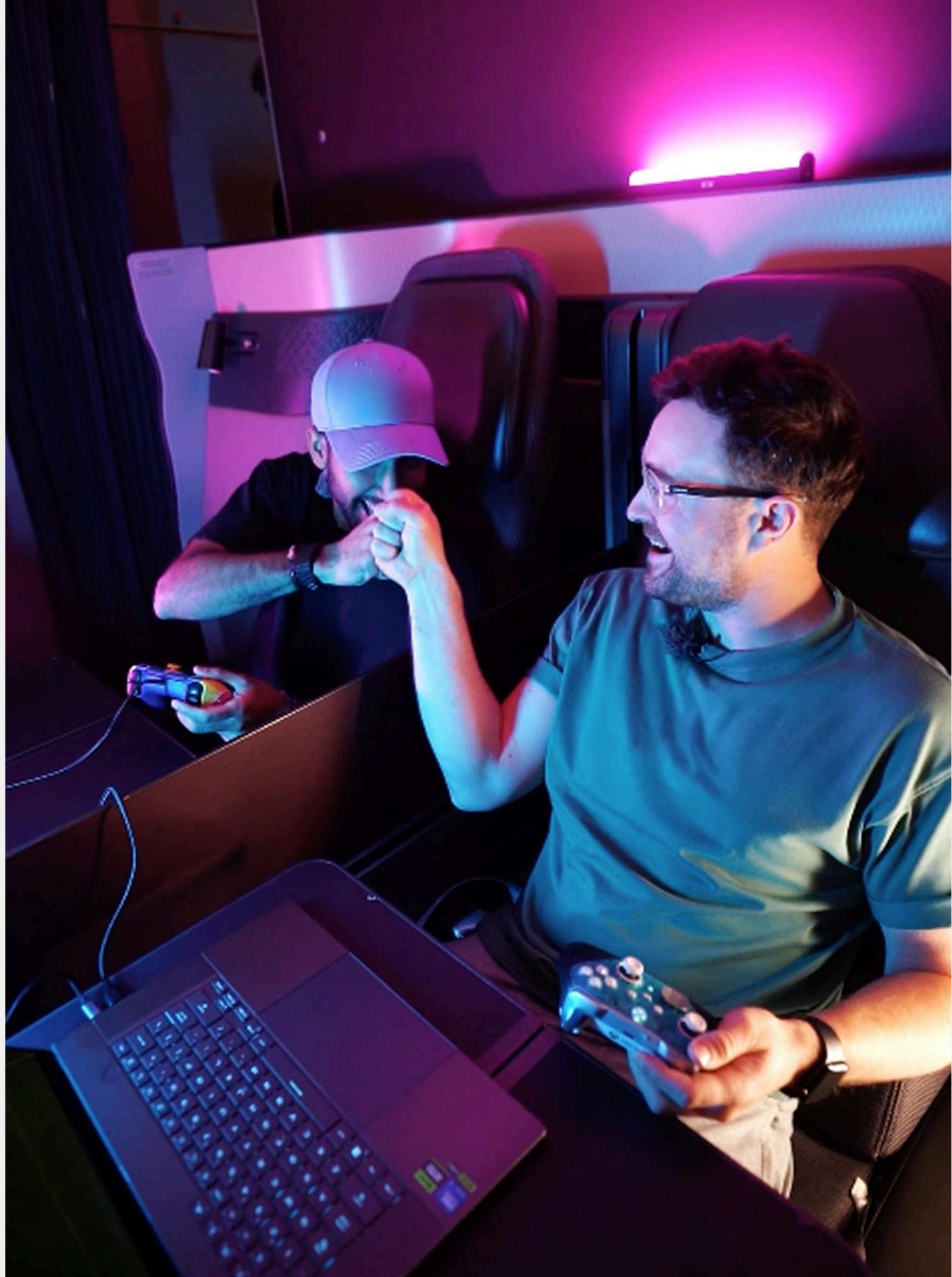
PROGRESS FOR

16.4

AVIATION

In May, Qatar Airways debuted "Gaming in the Sky: The Cloud Cup," a first-of-its-kind e-sports event that brought several of the world's best competitive gamers together for a new milestone in aviation, entertainment, and technology.

With Starlink's low-latency, high-bandwidth connectivity, Qatar Airways transformed the sky into a competitive gaming arena at 35,000 feet—with uninterrupted gameplay, live updates to fans, and results announcements on social media during a flight from Doha to London.





PROGRESS FOR

16.5

AVIATION

In the business aviation market, Starlink raced to meet the demand for in-flight connectivity, securing new Supplemental Type Certificates (STCs) and equipping more than 800 business jets across 36 airframes with five Original Equipment Manufacturers in 2025. Currently, more than 1,000 business jets are equipped with Starlink, representing more than 50% of all active tails.

The Gulfstream G550 and G650 led the year with 187 and 149 installations, respectively. This expansion was supported by 56 dealers and five aircraft manufacturer service –

center networks, providing 100 modification locations across four continents.

NetJets, a global leader in private aviation, activated its first Starlink-equipped plane this year and committed to installing Starlink on 600 aircraft within their fleet, including the Cessna Citation Latitudes, Embraer Praetor 500s, Cessna Citation Longitudes, Bombardier Challenger 350s, Bombardier Challenger 650s, and the entire Bombardier Global fleet in the U.S., as well as on Bombardier Challenger 650s and Bombardier Global aircraft based in Europe.





PROGRESS FOR

17.1

MARITIME

Starlink is now connecting more than 150,000 vessels, including cargo, tanker, tug, passenger, fishing, patrol, commercial cruise ships, and offshore supply vessels.

This year, Starlink served passengers aboard American Cruise Lines, Carnival Cruise Line, Crystal Cruises, MSC Cruises, Norwegian Cruise Line, Ritz-Carlton Yachts, Royal Caribbean Cruises, Virgin Voyages, and more!



Starlink's Community Gateway on Royal Caribbean's Star of the Seas provides 10 Gbps of symmetrical throughput, ensuring high-speed connectivity for passengers and crew while traveling at sea.

Starlink's connectivity from space and ability to route traffic via its inter-satellite laser links from anywhere in the world to internet Points of Presence on land provided stable, low-latency connections to more than 20 million cruise passengers in 2025.





PROGRESS FOR

17.2

MARITIME

In November, five people sailing 300 miles off the coast of Cape Hatteras were able to use their Starlink Mini to call the U.S. Coast Guard for help when their sailboat began taking on water in 10 foot seas.

"Our beloved (Starlink) unit went down with the "Magic Bus" this morning... but not before doing exactly what it was built to do. There's a very real chance it helped save the lives of everyone onboard, and for that we're incredibly grateful."

- Brandon, Starlink customer since 2022





PROGRESS FOR

18.1

SPACE EXPLORATION

In April, the Fram2 crew conducted the first polar orbit human spaceflight and used Starlink throughout their five-day mission to share their journey in space as it was happening. A Starlink optical laser provided the link between Dragon and the Starlink network, delivering at-home, fiber-like speeds to the Fram2 crew as they orbited the Earth at more than 27,000 km/h.

During the five-day mission, the Fram2 crew used Starlink to invite the world into their mission, showing us views of the Antarctic region never before seen by human eyes –

letting us see how they performed dozens of experiments to aid future space travelers, and sharing the sights and sounds of what it's like to live and work in space.

In September 2025, Muon Space announced that they will integrate Starlink's mini laser terminals onto their Halo satellite platform. Using Starlink's laser terminals as a commercial off the shelf, high-bandwidth, low-latency connectivity solution on orbit will allow customers using Muon Space's Halo satellite platforms to have persistent, real-time access to their satellite constellations and data—eliminating the latency associated with traditional ground networks and enabling real-time tasking, payload operations, and ultra-high bandwidth data streaming to anywhere on Earth.





PROGRESS FOR

18.2

SPACE EXPLORATION

Starlink's capability to place reliable, high-bandwidth, low-latency connections to any point on Earth's surface and in orbit is helping SpaceX quickly iterate on Starship's design. In 2025, Starlink again provided vital connectivity through atmospheric reentry—a period of spaceflight that historically results in minutes-long communication and data blackouts with a spacecraft. Starlink's signals can pass through the plasma created as Starship reenters the atmosphere without affecting communications, allowing Starship to send –

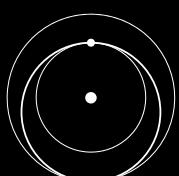
a strong and stable stream of data all the way from Earth orbit to the ground.

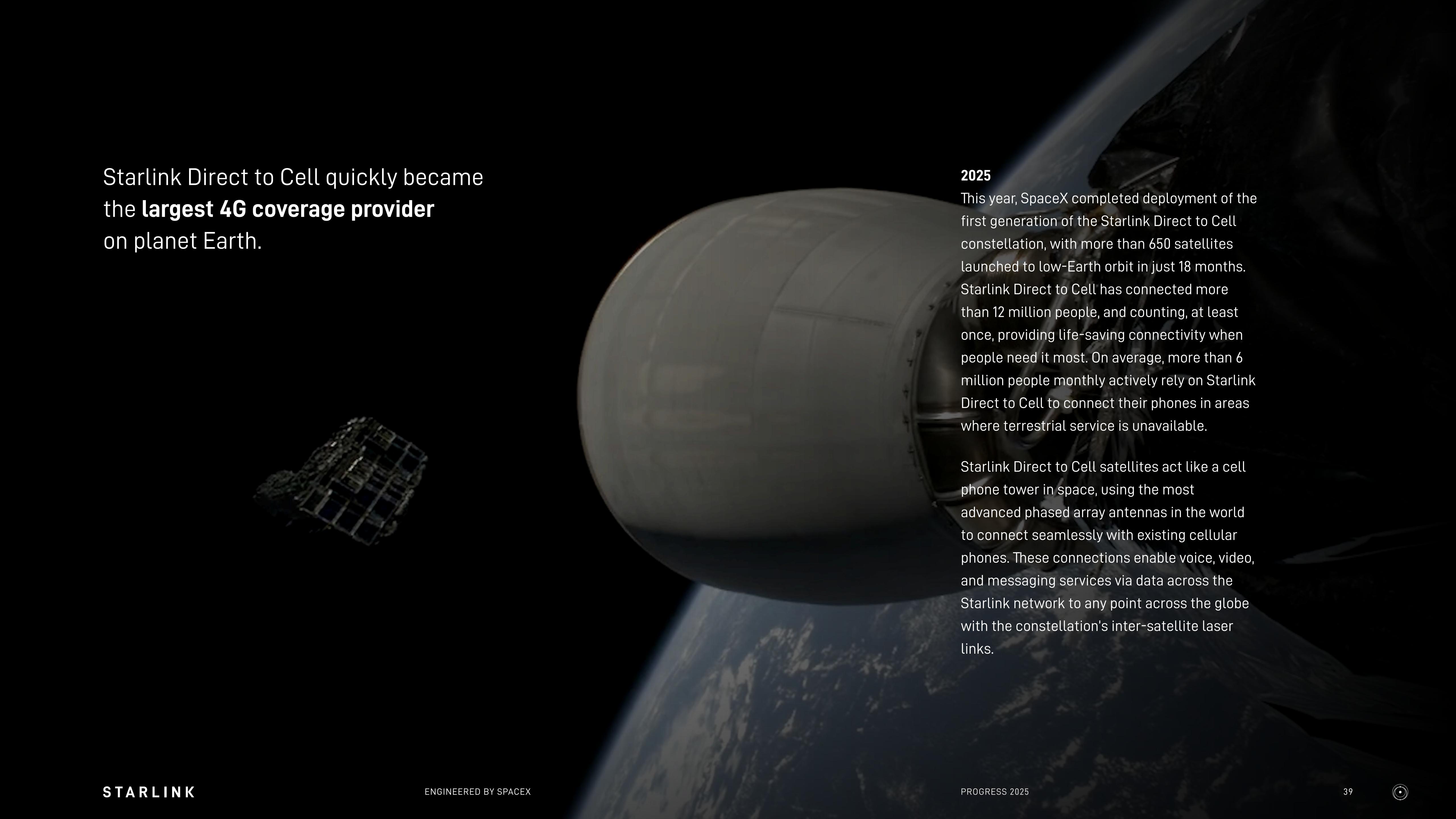
When Starship splashed down in the Indian Ocean, Starlink enabled SpaceX to collect high-definition video and imagery from a fleet of drones and remote-controlled ocean buoys about 1,500 kilometers from the closest land. All of this information that is made possible by Starlink is critical to engineers as we continue to iterate on Starship—the rapidly reusable reliable rocket under development by SpaceX that is designed to make humanity a multiplanetary species.



STARLINK

EXPANDING CONNECTIVITY





Starlink Direct to Cell quickly became the **largest 4G coverage provider** on planet Earth.

2025

This year, SpaceX completed deployment of the first generation of the Starlink Direct to Cell constellation, with more than 650 satellites launched to low-Earth orbit in just 18 months. Starlink Direct to Cell has connected more than 12 million people, and counting, at least once, providing life-saving connectivity when people need it most. On average, more than 6 million people monthly actively rely on Starlink Direct to Cell to connect their phones in areas where terrestrial service is unavailable.

Starlink Direct to Cell satellites act like a cell phone tower in space, using the most advanced phased array antennas in the world to connect seamlessly with existing cellular phones. These connections enable voice, video, and messaging services via data across the Starlink network to any point across the globe with the constellation's inter-satellite laser links.



In partnership with Mobile Network Operators (MNOs) around the world, Direct to Cell took Starlink's promise of connectivity even further, providing **video**, **voice**, and **messaging** services directly to the phones of millions of people in mobile dead zones.

22

Countries

6

Continents

6M+

Monthly Customers

650+

Direct to Cell Satellites

400M+

People with Direct to Cell
Access Globally

27

MNO Partners



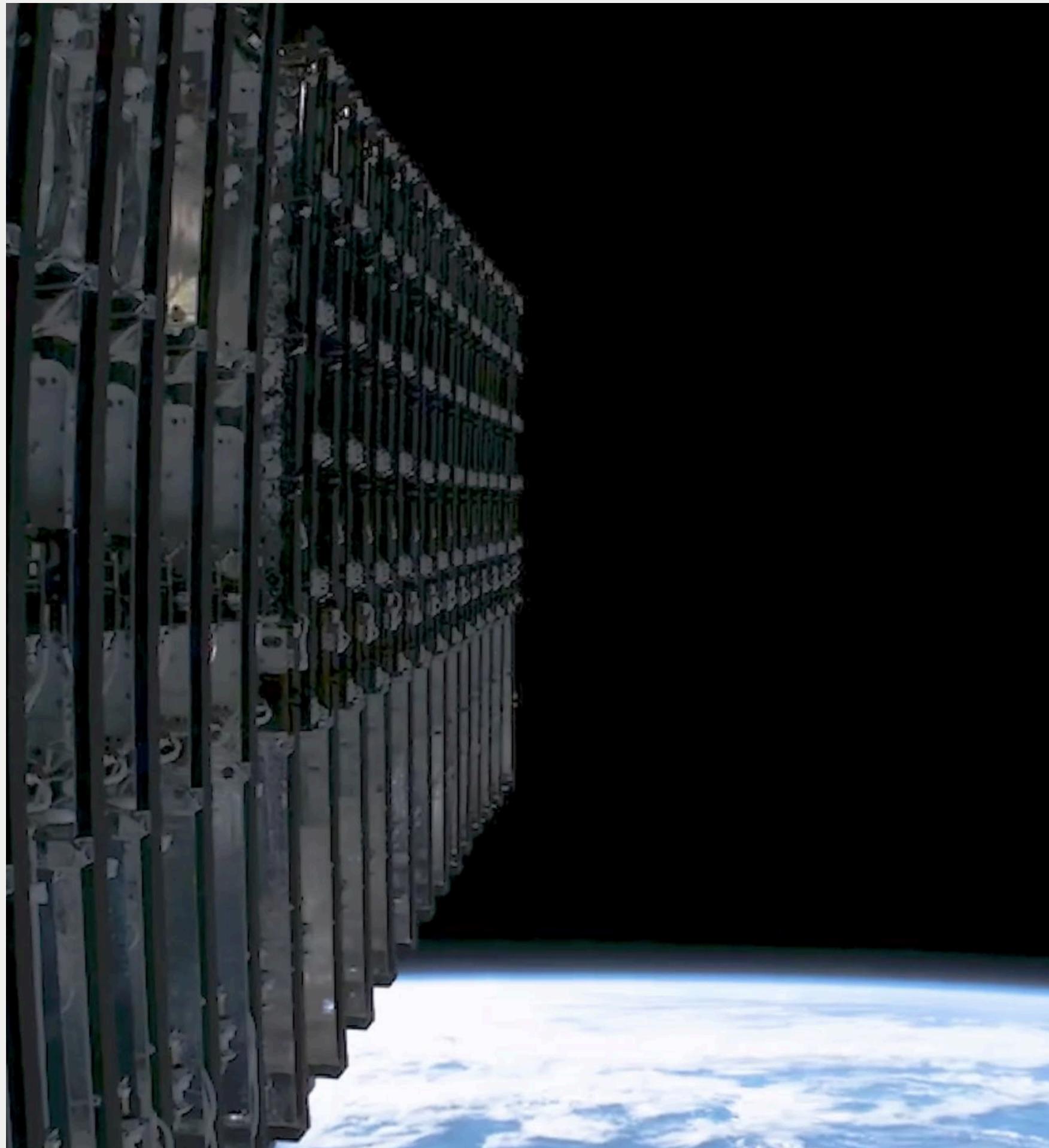
At the start of 2025, SpaceX had nearly 350 Starlink Direct to Cell satellites in orbit. By the middle of the year, we had

Nearly doubled that number to more than **650 satellites** and completed deployment of our first generation of the Direct to Cell network.

STAYING CONNECTED

Operating at 360 kilometers above the surface of the Earth, Direct to Cell satellites fly lower than any other constellation in order to optimize the link between the cell phone and satellite. Starlink Direct to Cell is the largest and most robust in-space communications provider for unmodified cellular devices—and the only one actively serving customers.

Through our MNO partners, Starlink Direct to Cell is available to more than 400 million people. Millions of customers have sent or received texts, video calls, emails, and Wireless Emergency Alerts since the system started commercial service at the very end of 2024.





In the second half of 2025, customers began using data outdoors through Starlink Direct to Cell, with access to apps ranging from social media and messaging platforms like X and WhatsApp to navigation and essentials like Google Maps and AccuWeather. There are more than 30 apps and more than 100 optimized devices Direct to Cell supports globally.

Starlink Direct to Cell also enables Internet of Things (IoT) connections in remote areas to improve business operations across several disciplines including agriculture, farming, and construction.

With Starlink Direct to Cell, IoT users are able to more efficiently communicate from the field to centralized offices, reduce downtime for equipment repair, and send real-time updates on remote operations.





PROGRESS FOR

19

WILDFIRE RELIEF EFFORTS

When LA was devastated by wildfires earlier this year, Starlink worked with MNOs to activate Direct to Cell service early in the affected areas.

Because of Starlink Direct to Cell's service, more than 400,000 people, including fire fighters, first responders, and residents, were able to connect to the service, sending over 250,000 SMS text messages and receiving more than 150 Wireless Emergency Alerts that they otherwise wouldn't have gotten.





PROGRESS FOR

20

EMERGENCIES IN CELLULAR DEAD ZONES

Starlink Direct to Cell is powering life-saving connectivity to millions of people globally when they need it most. In New Zealand this year, a woman driving in a remote part of the country came upon a single-vehicle accident in a known cellular dead zone, yet Starlink's Direct to Cell system automatically connected with the woman's unmodified cell phone, allowing her to share her location and what was happening. Responders arrived on scene within minutes.

In the United States, when a Girl Scout fell into a canyon in Southern California, she was able to use Direct to Cell when she had no terrestrial cell coverage to share her location with 911 and allow rescuers to find her.



DEDICATED SPECTRUM FOR DIRECT TO CELL

In January 2024, SpaceX began deploying Starlink satellites with Direct to Cell capabilities. At the time, 50 percent of the world's land mass remained uncovered by terrestrial services. A year and a half later, and with more than 650 Starlink Direct to Cell satellites in orbit, the first-generation Direct to Cell constellation is operational across six continents and is –

The largest 4G coverage provider on planet Earth, connecting over 12 million users and counting.

Starlink remains committed to working with mobile network operators globally to continue delivering ubiquitous coverage to as many customers as possible.



SEPTEMBER 2025

SpaceX entered into a purchase agreement with EchoStar for 50 MHz of exclusive S-band spectrum in the United States as well as global Mobile Satellite Service (MSS) spectrum licenses.

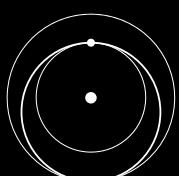
NOVEMBER 2025

SpaceX agreed to purchase an additional 15 MHz of AWS spectrum in the frequency range of 1695–1710 MHz from EchoStar. This acquisition will enable SpaceX to develop and deploy our next generation Starlink Direct to Cell constellation which will fully utilize this spectrum. Exclusive access to this spectrum, along with use of optimized 5G protocols designed for satellite connectivity, will enable a step change in performance for Starlink Direct to Cell.



STARLINK

ADVANCING TECHNOLOGY





V2 MINI OPTIMIZED SAT

In January, SpaceX began launching Starlink V2 Mini Optimized satellites. The V2 Mini Optimized satellites are lighter than the previous generation and include improvements in reliability by designing out known susceptibilities and failure points from earlier satellite versions. The reduced weight of each satellite allows Falcon 9 to launch more satellites per mission and deliver additional useful capacity to the constellation.

With Starlink's vertical integration at its satellite manufacturing facility in Redmond, Washington, SpaceX has been able to launch more than 3,000 V2 Mini Optimized satellites this year, adding more than 270 Tbps of capacity to the constellation.





NETWORK IMPROVEMENTS

NETWORK RESILIENCE

With more than 9,000 active satellites in orbit, Starlink customers always have multiple satellites in view, as well as multiple gateway sites and internet Points-of-Presence locations for the constellation to route data through. As a result, Starlink customers benefit from continuous service even when terrestrial broadband is suffering from fiber cuts, subsea cable damage, and power outages that can deny service to millions of individuals for days.

During a power outage affecting the entirety of Spain and Portugal this year, Starlink service remained fully functional for the duration of the outage, despite eventual loss of power that took out nearly all other forms of broadband.

Additionally, each Starlink satellite is equipped with cutting-edge optical links that ensure they can relay hundreds of gigabits of traffic directly with each other, no matter what happens on the ground. This laser network enables Starlink satellites to consistently and reliably deliver data around the world and route traffic around any ground conditions that affect terrestrial service at speeds that are physically impossible on Earth.





LASERS

Each Starlink V2 Mini satellite is equipped with three advanced laser inter-satellite links that facilitate direct communication between satellites. The optical mesh is comprised of more than 24,000 lasers, connecting the constellation worldwide.

Hardware advancements to reject jitter in laser links combined with faster routing reactivity this year has resulted in a 2-3 times reduction in ping loss when served over lasers, enabling a seamless user experience globally.

Faster laser link acquisition times have led to a smarter, user-aware laser mesh resulting in a 30-40 ms latency improvement in Asia and Africa. Further hardware upgrades next year will enable 400 Gbps operation, expanding the capability of the laser mesh.

This year, Starlink introduced the Mini Laser—a self-contained inter-satellite assembly specifically designed to integrate onto third-party satellite busses using the same technology in the Starlink constellation.

Starlink Mini Lasers will provide operators access to high-speed, low-latency connectivity from their satellites to terrestrial Points of Presence by leveraging access to Starlink's existing laser network. A successful flight of two Mini Lasers in Summer 2025 demonstrated greater than 25 Gbps data transfer between the demonstration units and existing Starlink mesh.





NETWORK IMPROVEMENTS

STARLINK

ENGINEERED BY SPACEX

CURRENT NETWORK PERFORMANCE

Starlink's speed and latency have radically improved over the past year, even with an unprecedented level of growth.

In 2025, median peak-hour global speeds increased by over 50%, with median download speeds averaging over 200 Mbps and typical upload speeds of more than 30 Mbps, with a median global latency around 26 ms.

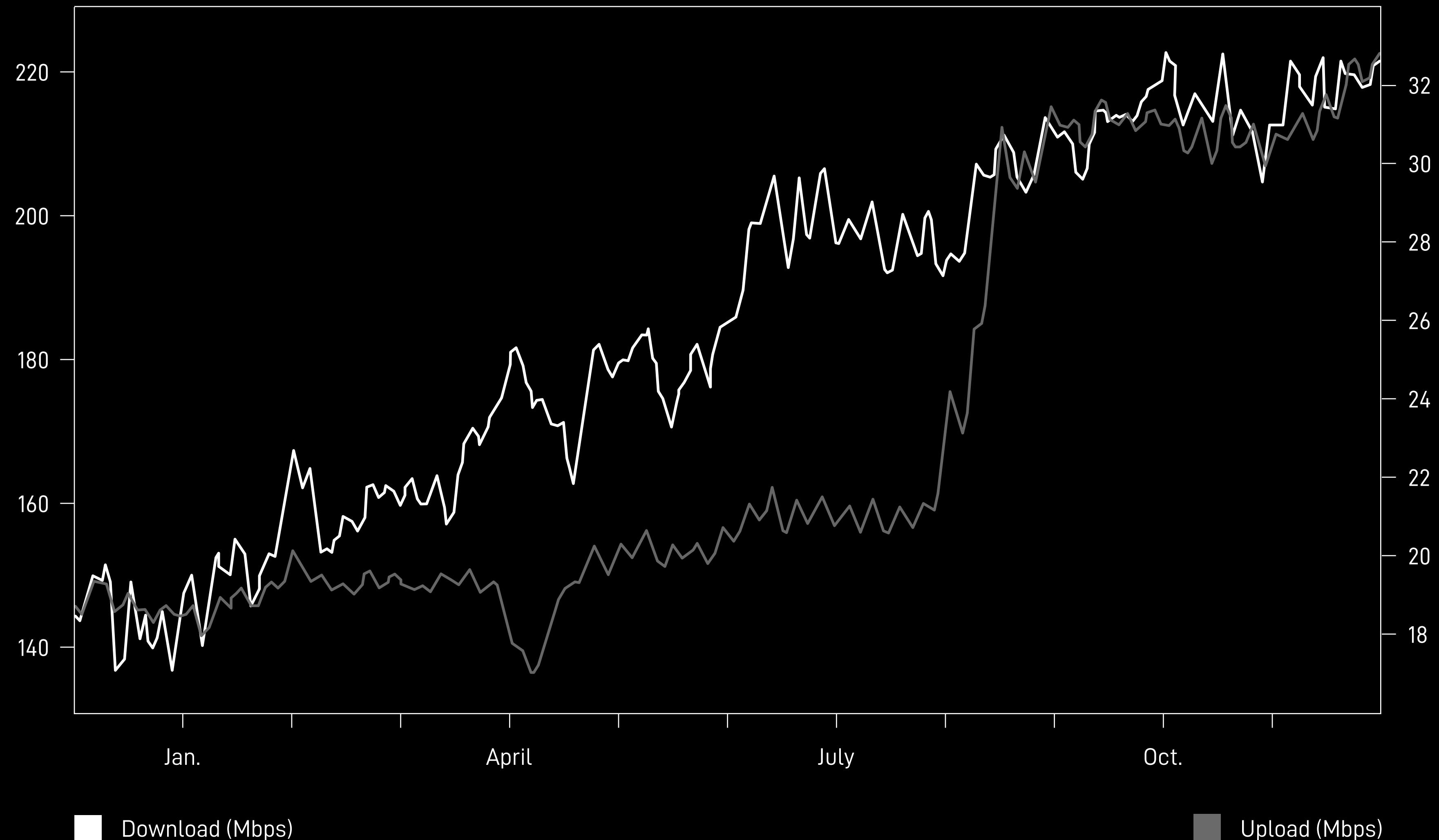
Starlink engineering teams have been focused on improving the performance of the network – driving latency as low as possible, with the goal of delivering a service with stable 20 ms median latency and minimal packet loss.

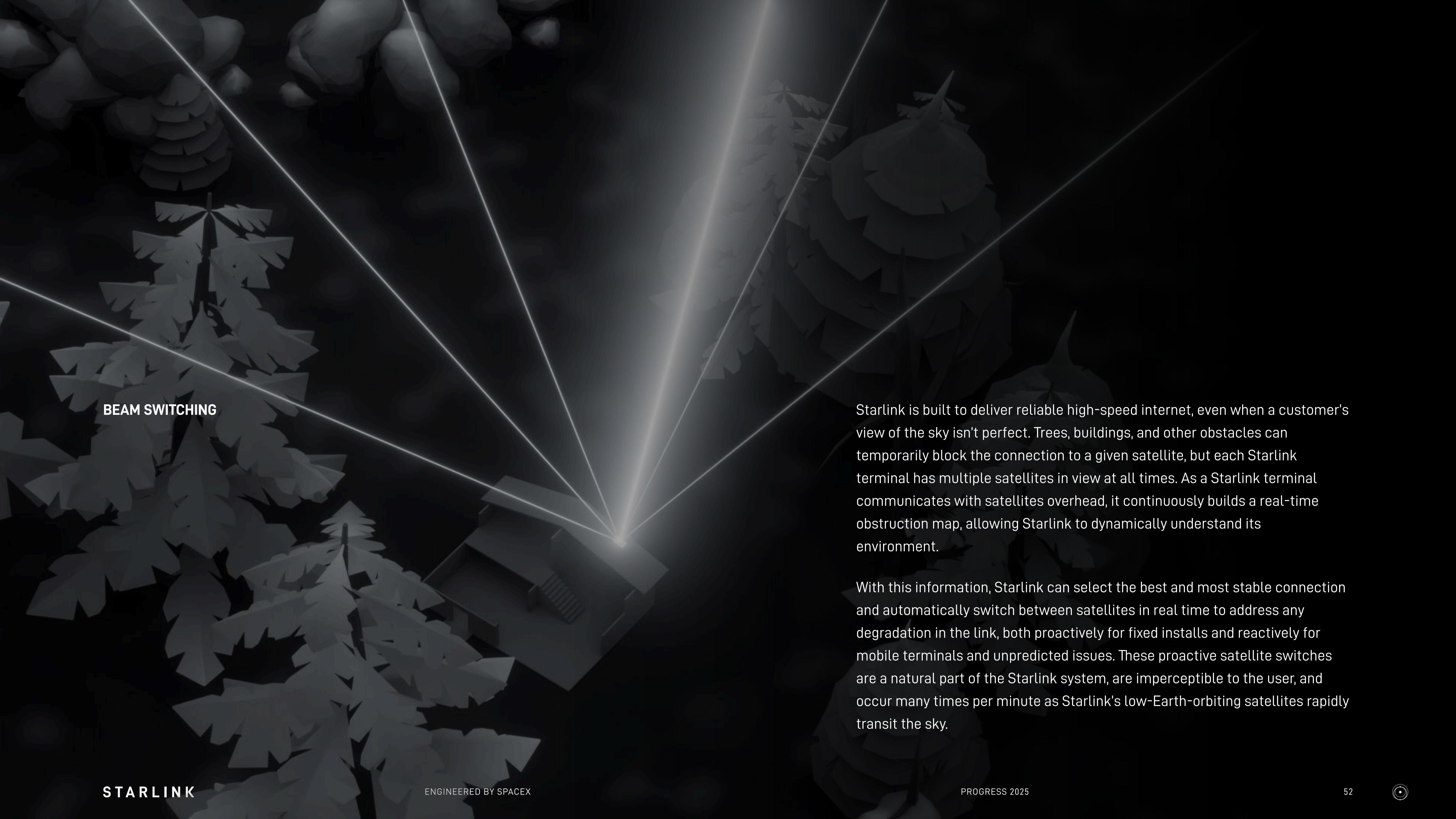
To do this, Starlink has deployed the largest satellite ground network ever. More than 100 gateway sites in the United States alone—comprising a total of 1,500+ antennas—are strategically placed to deliver the lowest possible latency, especially for those in rural and remote areas. Starlink produces these gateway antennas at our factory in Redmond, Washington.



STARLINK DOWNLOAD & UPLOAD SPEEDS

MEDIAN PEAK-HOUR GLOBAL SPEEDS IN 2025





BEAM SWITCHING

Starlink is built to deliver reliable high-speed internet, even when a customer's view of the sky isn't perfect. Trees, buildings, and other obstacles can temporarily block the connection to a given satellite, but each Starlink terminal has multiple satellites in view at all times. As a Starlink terminal communicates with satellites overhead, it continuously builds a real-time obstruction map, allowing Starlink to dynamically understand its environment.

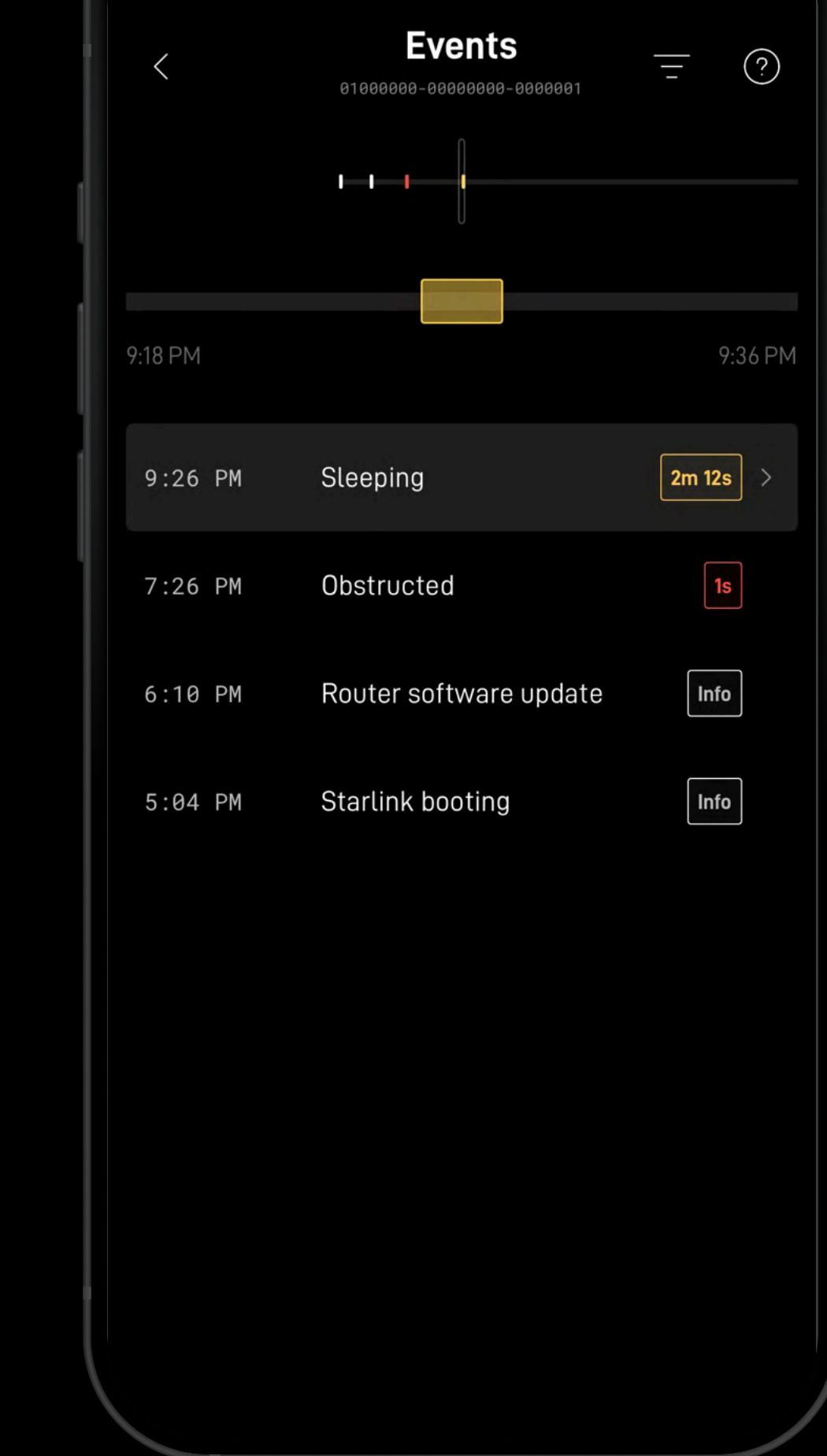
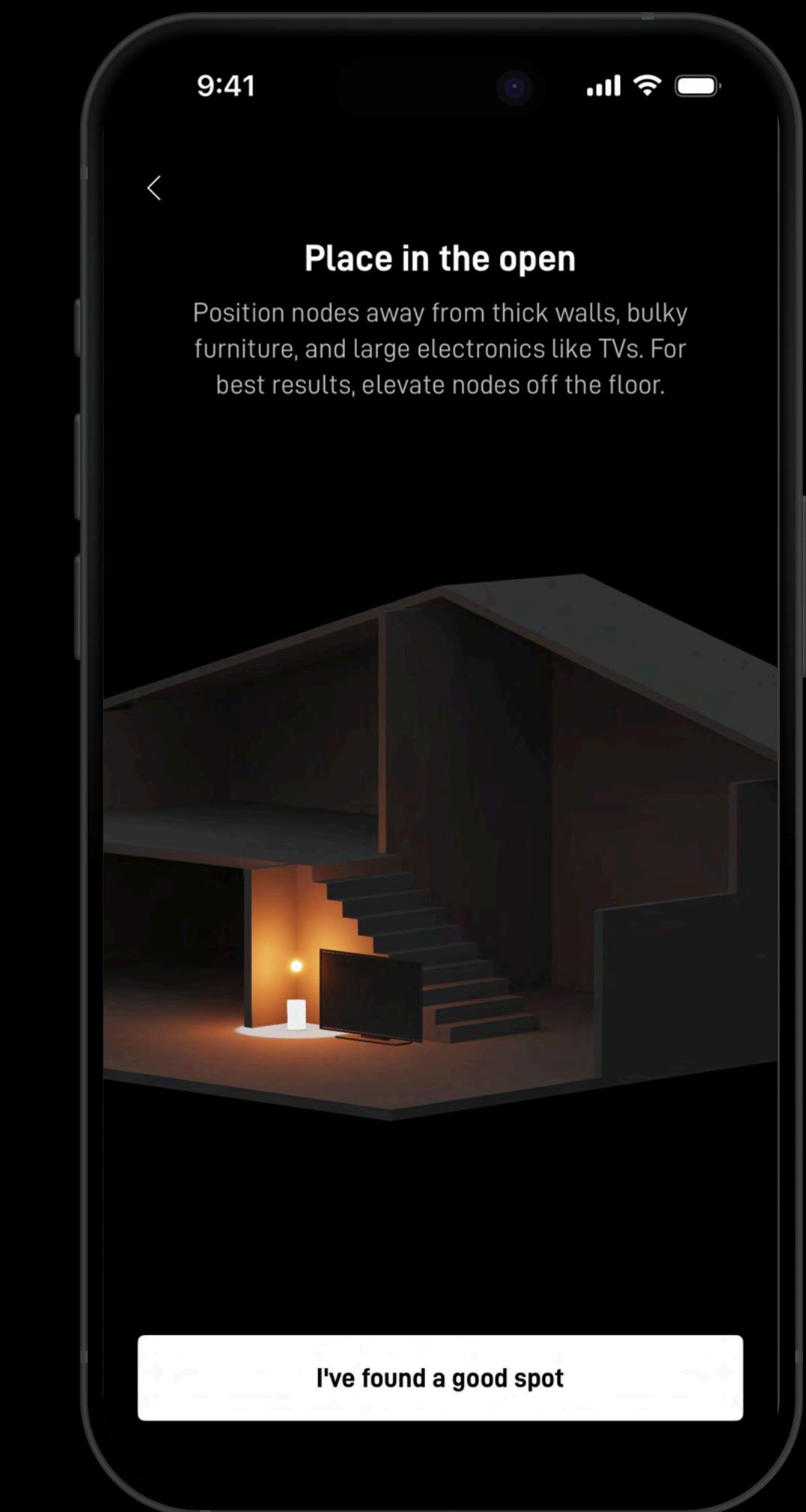
With this information, Starlink can select the best and most stable connection and automatically switch between satellites in real time to address any degradation in the link, both proactively for fixed installs and reactively for mobile terminals and unpredicted issues. These proactive satellite switches are a natural part of the Starlink system, are imperceptible to the user, and occur many times per minute as Starlink's low-Earth-orbiting satellites rapidly transit the sky.



STARLINK APP

Starlink is committed to providing reliable, high-bandwidth, low-latency internet directly to customers with hardware and support that are simple and straightforward to use.

In 2025, Starlink made notable progress in this area, introducing Grok-powered AI support, improving the Starlink app, and developing new hardware for customers.



STARLINK APP



As Starlink scales across the globe, the Starlink app now supports **30+ languages** and continues to raise the bar for how users interact with our technology.

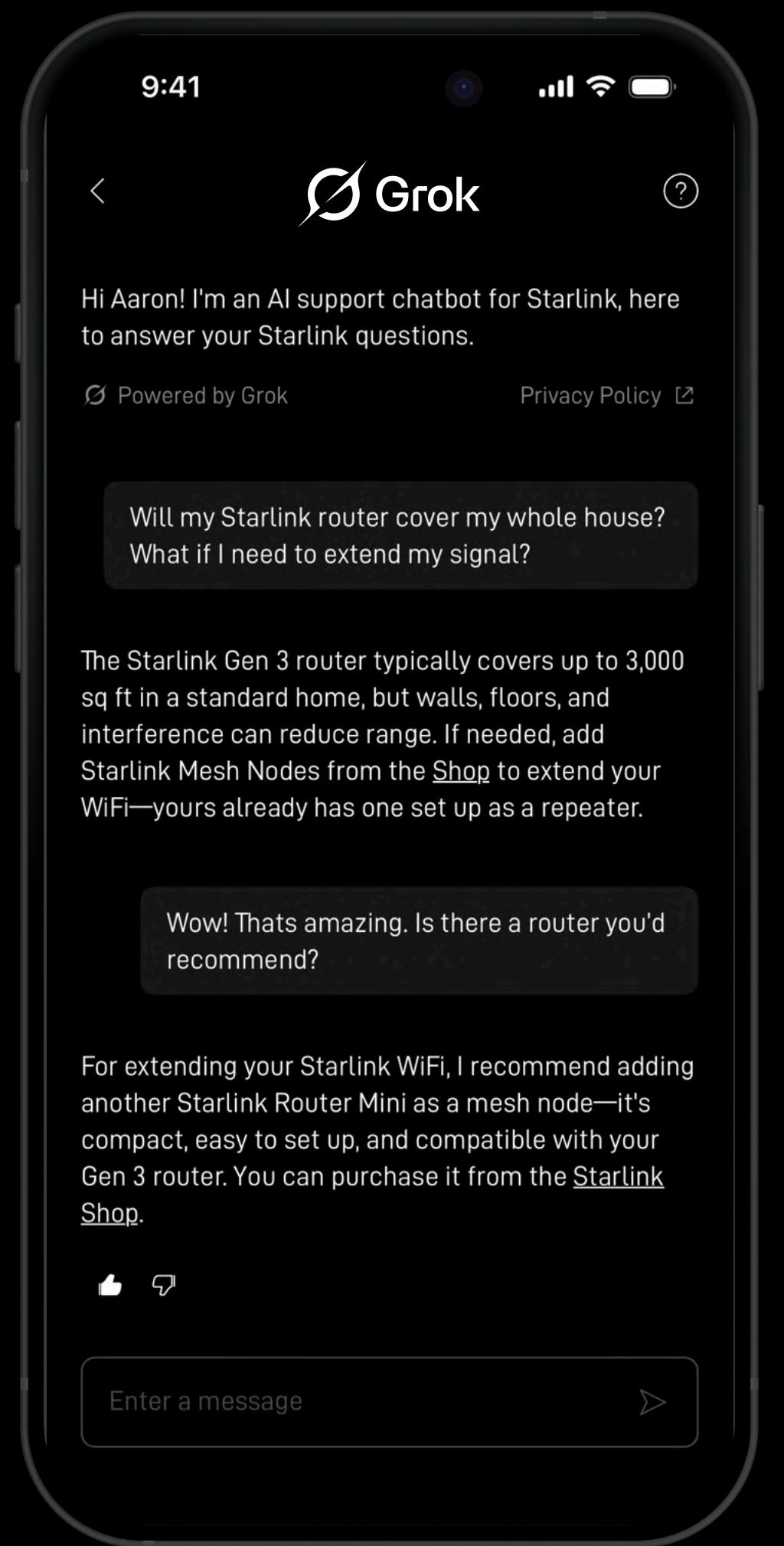
This year, Starlink introduced a fully redesigned speed test with real-time 3D visualization, giving users clearer insight into their network performance. We expanded our Wi-Fi and mesh education tools to make pairing, optimizing, and managing home networks easier than ever.

With the launch of the unified Event Log—an end-to-end timeline of everything happening on a user's network—Starlink advanced our goal of becoming the world's most transparent internet service provider.

When the Fram2 astronauts conducted on-orbit speed tests and connectivity checks, they used the Starlink app.



GROK-POWERED SUPPORT



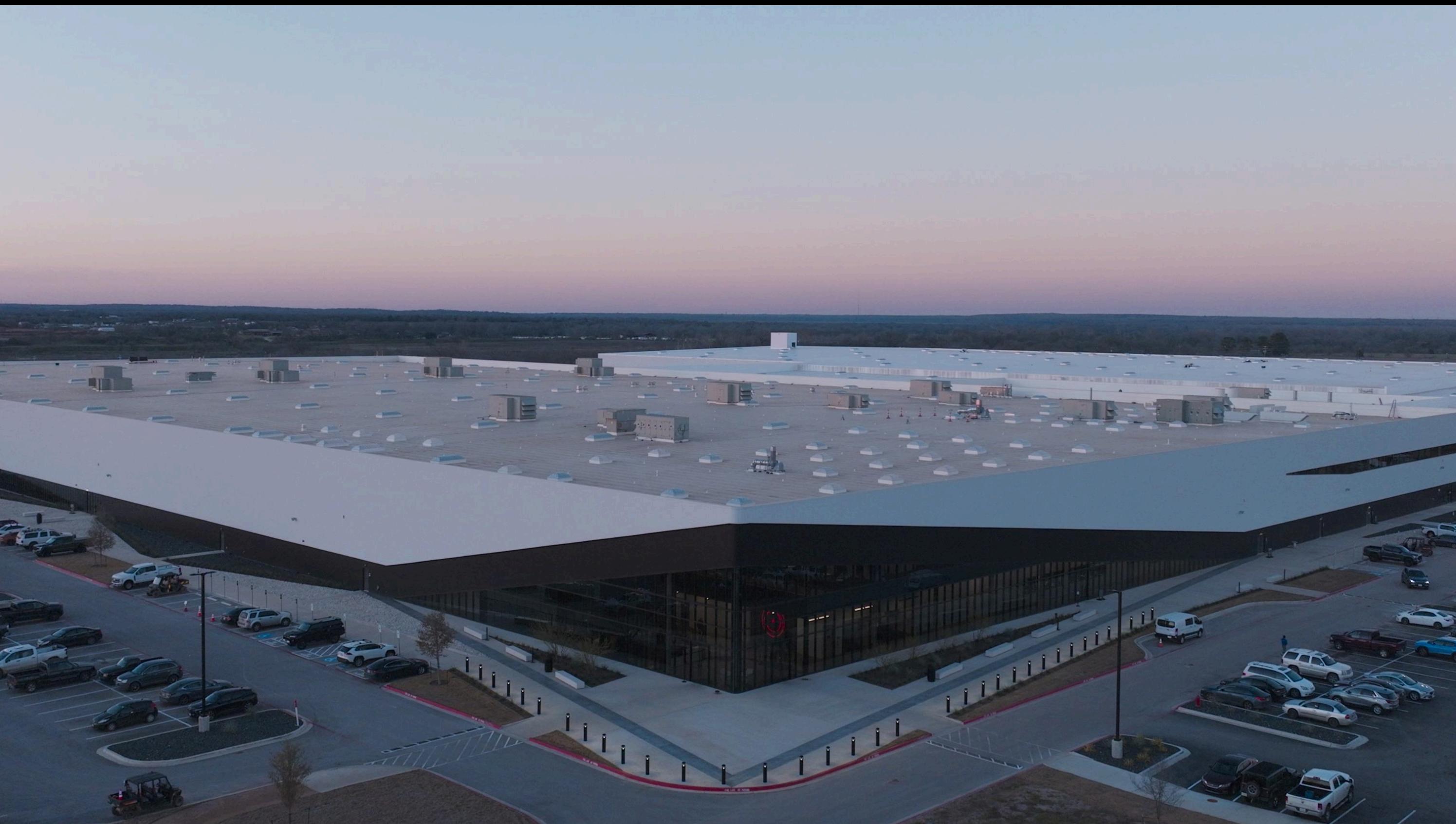
In 2025, Starlink made significant improvements to the Starlink Grok-powered customer support chatbot, enabling it to resolve problems faster and with greater accuracy.

The chatbot is now able to perform hardware diagnostics, order hardware replacements, issue service credits, and provide advanced troubleshooting. The chatbot also has a comprehensive view of each account—including payments, orders, invoices, telemetry, previous interactions, and more—allowing Grok-powered customer support to deliver more personalized guidance.



MANUFACTURING IN THE U.S.

Over the past year, the Starlink team has continued to prioritize scalability, expanding manufacturing space by an additional 1 million square feet at our Bastrop, Texas facility just outside Austin. The Bastrop site has become a cornerstone of American, vertically integrated manufacturing, now supporting more than 1,300 local jobs. As global demand surges, Starlink has ramped up production capabilities to over 170,000 Starlink kits per week across the United States.



OUR SITES

REDMOND

In Washington state, our satellite production team has significantly scaled production capabilities by incorporating a new 270,000 sq. ft campus in Woodinville and bringing the total facilities space in Washington state to over 700,000 sq. ft between Redmond and Woodinville. These two facilities will provide ample space to accommodate next year's production demand and streamline workflows. This year, Starlink achieved and exceeded an impressive delivery rate of 70 satellites per week, ensuring a reliable supply of satellites to the launch sites and to orbit.

Starlink's insourcing efforts for critical machined parts, PCBA production, and various satellite components and assemblies have helped reduce external dependencies and are providing valuable feedback to our design teams. This has allowed Starlink to accelerate overall manufacturing efficiency, increase production yields, and reduce satellite cost. Starlink is proud to make a substantial contribution to revitalizing U.S. manufacturing, fostering domestic innovation, creating high-skilled jobs, and contributing to U.S. leadership in space.



BASTROP

At Bastrop, our Printed Circuit Board (PCB) factory has quadrupled its output over the past year. Complementing this growth is our innovative closed-loop wastewater treatment system, which collects, treats, and recycles water from PCB processes—enabling massive scaling while minimizing consumption and safeguarding the local environment.



OUR SITES

In 2026, Starlink aims to double Starlink kit production at the Bastrop site to meet rising demand for high-speed, low-latency internet. This expansion will further scale our vertical integration in injection molding, die-casting, PCBs, and PCBA assembly, aligning with our strategy to diversify the supply chain and deliver products Engineered by SpaceX and Made in the U.S.



NEW HARDWARE



Starlink expanded its hardware lineup with the launch of the Performance Kit and the Router Mini. The Performance Kit features a wider field of view designed to better support mobility and challenging install environments, along with improved durability for demanding applications.

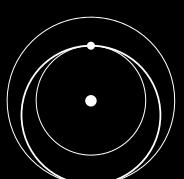
The Router Mini delivers strong Wi-Fi performance in an ultra-compact design and at a remarkably low cost, offering one of the best price-to-performance routers available today.

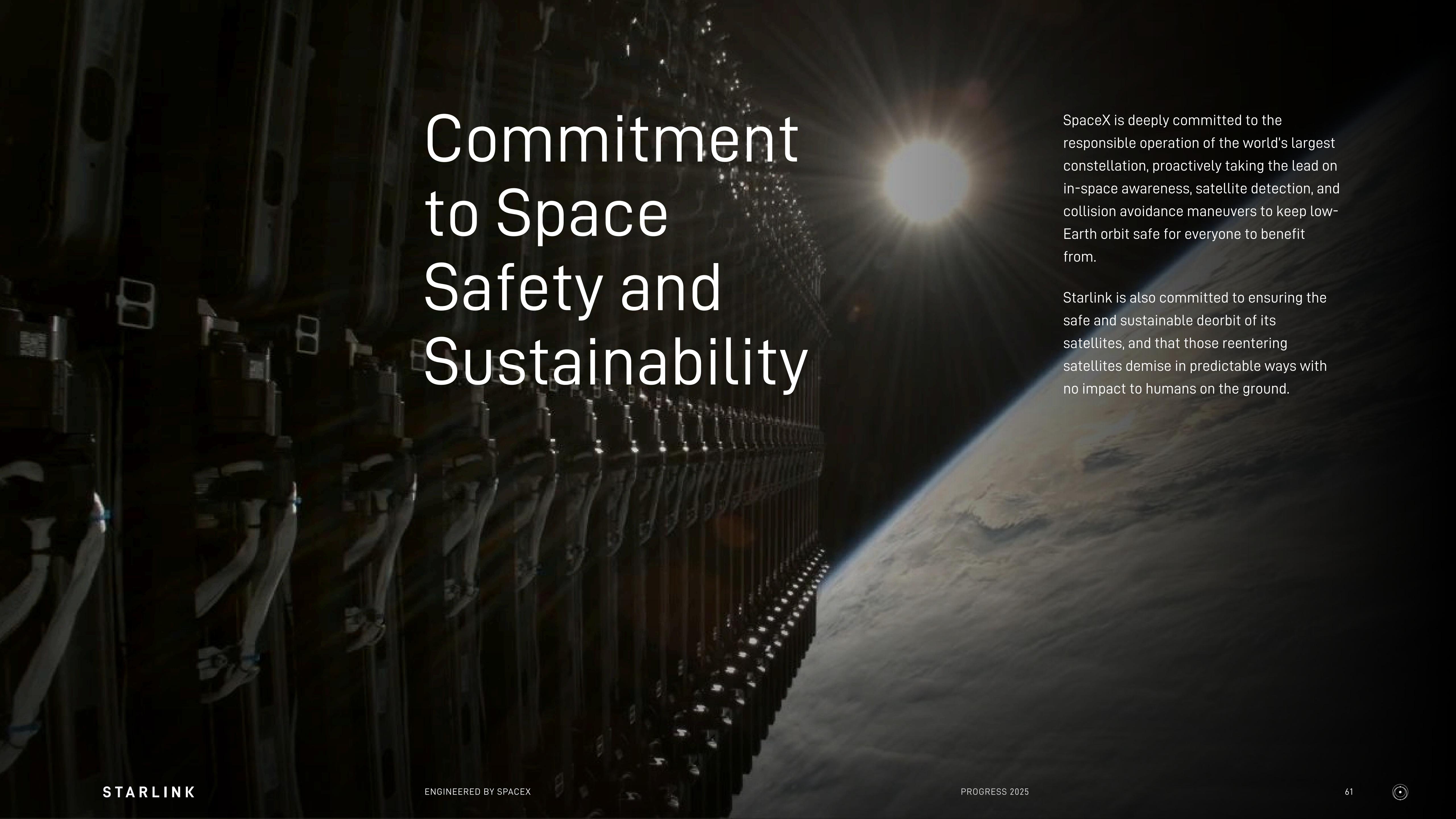
Together, these products broaden Starlink's hardware options and support an even wider range of use cases on land, at sea, and on the move.



STARLINK

KEEPING SPACE SAFE AND SUSTAINABLE





Commitment to Space Safety and Sustainability

SpaceX is deeply committed to the responsible operation of the world's largest constellation, proactively taking the lead on in-space awareness, satellite detection, and collision avoidance maneuvers to keep low-Earth orbit safe for everyone to benefit from.

Starlink is also committed to ensuring the safe and sustainable deorbit of its satellites, and that those reentering satellites demise in predictable ways with no impact to humans on the ground.



LAUNCH COLLISION AVOIDANCE



In 2025, Starlink made several improvements to early mission conjunction screenings to maximize safety immediately after satellites arrive on orbit.

The SpaceX Conjunction Screening Service provides pre-launch information of the orbital traffic newly launched satellites will encounter shortly after reaching orbit. These pre-launch screenings allow Starlink to choose a launch window that minimizes the likelihood of early mission conjunctions.

This year, Starlink made progress with the V2 Mini satellite's post-launch activations, shortening the time it takes after reaching orbit for newly launched satellites to take responsibility for avoidance maneuvers.

Starlink also coordinates with other operators and launch providers to mitigate hazards from their launches, including minimizing overlap with high density orbital altitudes or adjusting Starlink satellite trajectories to avoid the intended insertion orbit of another operator's upcoming launches.

For information on enabling effective, open conjunction coordination, [visit our satellite operator page](#).

To download the latest Starlink satellite ephemerides, or submit ephemeris for your own satellite for rapid conjunction screening, refer to the [conjunction screening system documentation](#).

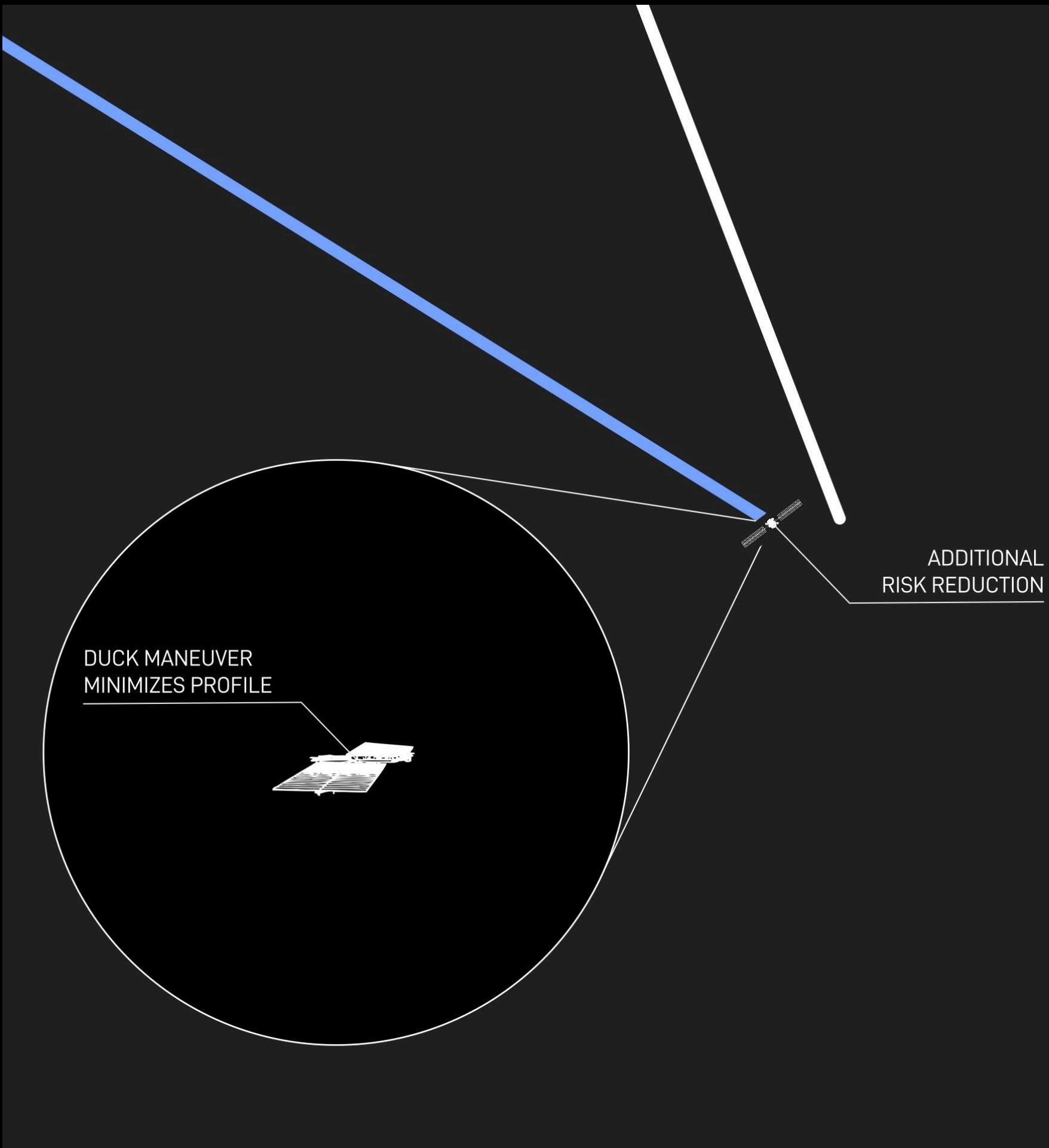


SPACE SAFETY

Starlink is committed to the safe and responsible use of low-Earth orbit.

SpaceX operates an orbital fleet of more than 9,000 active Starlink satellites and uses maneuver decision thresholds with a level of safety greater than the industry-standard for automatically determining when Starlink satellites need to perform avoidance maneuvers to maintain safe separation distances with other satellites in orbit.

When the Starlink network automatically determines that an avoidance maneuver is needed, Starlink satellites themselves take maneuver responsibility in coordination with other satellite operators. Starlink believes that everyone must be good stewards of Earth's orbital resources, and we will continue iterating on our maneuver thresholds and automation to improve safety even further.





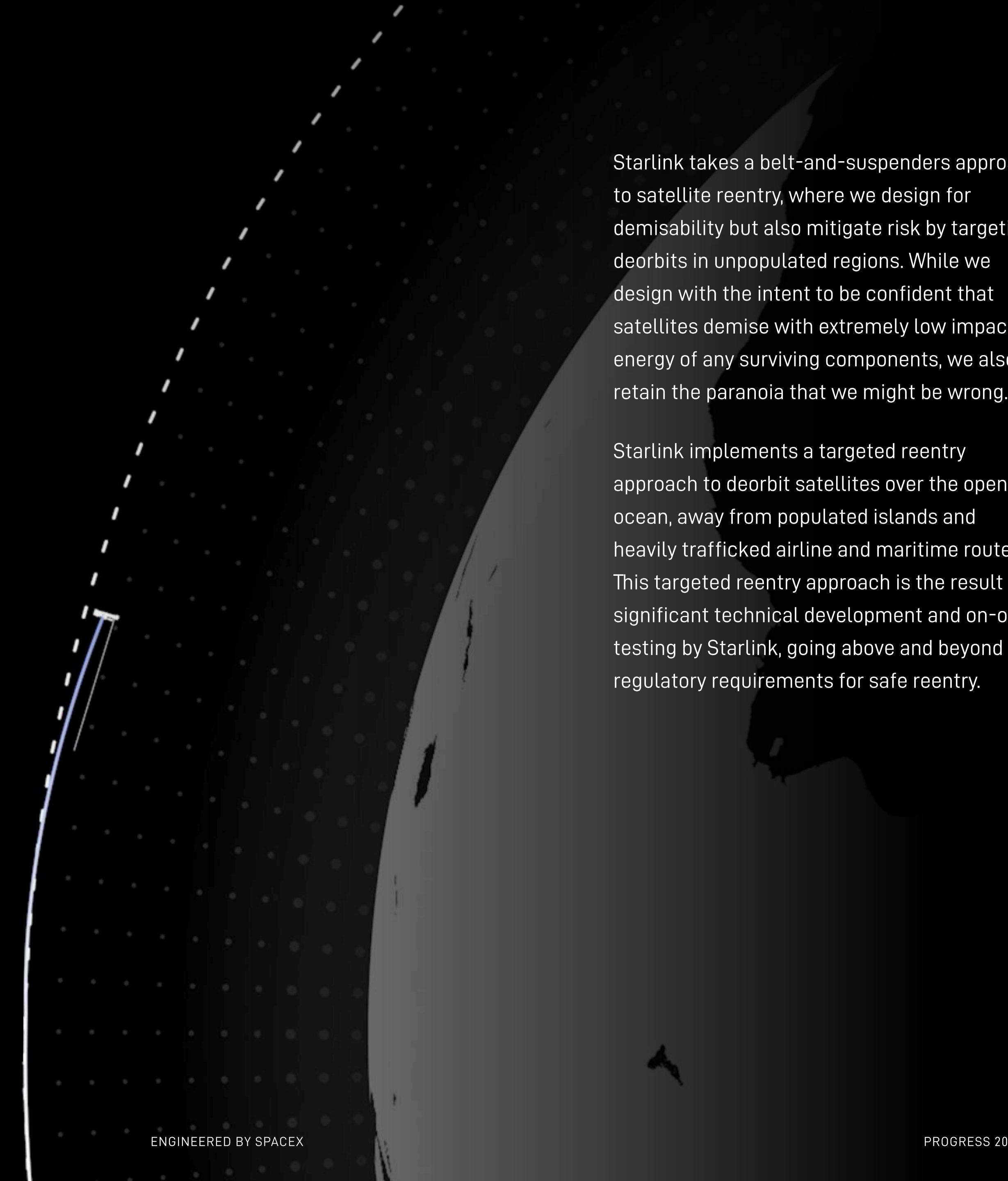
SOLAR STORM RESPONSE

Solar storms cause a sharp rise in atmospheric density in low-Earth orbits which can introduce challenges to conjunction predictions, station-keeping, attitude control, and other operator data quality. Starlink's response to solar storms saw improvements across all of these fronts in 2025. Algorithm enhancements now allow Starlink satellites to more quickly and efficiently weather major solar storms without the need for human intervention.

More advanced algorithms enable Starlink satellites to dodge poorly tracked objects and maintain SpaceX's station-keeping requirements. Improvements to data sources on third party objects, as well as latency reductions for data sharing and conjunction screening, enable Starlink satellites to keep themselves safe even during volatile space weather conditions.



TARGETED REENTRY



Starlink takes a belt-and-suspenders approach to satellite reentry, where we design for demisability but also mitigate risk by targeting deorbits in unpopulated regions. While we design with the intent to be confident that satellites demise with extremely low impact energy of any surviving components, we also retain the paranoia that we might be wrong.

Starlink implements a targeted reentry approach to deorbit satellites over the open ocean, away from populated islands and heavily trafficked airline and maritime routes. This targeted reentry approach is the result of significant technical development and on-orbit testing by Starlink, going above and beyond regulatory requirements for safe reentry.

Successful targeted reentry requires maintaining attitude control down to very low altitudes (~125 km). This control authority allows us to fly satellites along a reference trajectory, using variable drag (instead of propulsion) to remove energy from the orbit. With this approach, we are able to track an atmospheric entry point to within approximately 10% of an orbit's ground track, or ~10 minutes, which is sufficient accuracy to successfully target reentry of the entire potential debris ellipse over the open ocean.

Although we have demonstrated successful targeted reentry numerous times this year, we continue to iterate on making this feature robust to attitude control system failures, atmospheric variability, and different vehicle configurations.



SATELLITE DEMISABILITY

Satellite Demisability Analysis

A critical aspect of sustainable satellite design is demisability, which ensures that satellites fully break up and burn up during atmospheric reentry.

If a component is not predicted to fully demise, we ensure via analysis and experimentation that the impact energy of any surviving component falls well below the U.S. Government Orbital Debris Mitigation Standard Practices (ODMSP) standard of 15 Joules (which corresponds to being hit by a 1.7" piece of hail).

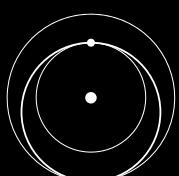
Starlink takes a much more conservative design approach, targeting an impact energy of less than 3 Joules at the component level. Starlink's approach to minimizing reentry risk, based on aggressively limiting impact energy coupled with targeted reentry, means that a reentering V2 Mini satellite (the design currently launching on Falcon 9) represents a risk of human casualty of less than 1 in 100 million (the risk of fatality in a commercial airplane crash is approximately 1 in 11 million) and is significantly more conservative than the current industry standard.

Our goal is to keep improving this figure (as well as our understanding of the demise physics) on all future designs.



STARLINK

THE NEXT CHAPTER



2025 was a year of meaningful progress for Starlink and our **9+ million customers** –

along with the millions of others who use and rely on Starlink for their connectivity needs—wherever and whenever they need it.

Starlink is committed to scaling our services and capabilities to meet the growing demand for reliable high-speed connectivity all around the world.



FUTURE

In Starbase, Texas, SpaceX is developing Starship —

The World's First Fully and Rapidly Reusable Rocket

Starship is the world's most powerful launch vehicle ever developed, capable of carrying crew and cargo to Earth orbit, the Moon, Mars and beyond. Starship is designed to return to the launch site with the ability to rapidly launch again without refurbishment.

Starship will enable the deployment of the next generation Starlink broadband and Direct to Cell constellations in Earth orbit.



STARSHIP

SpaceX's next generation Starlink and Direct to Cell satellites will be taken to orbit by Starship—the first rocket system designed for full, rapid, and reliable reuse.

This year saw meaningful learnings and progress for Starship. In January 2025, SpaceX successfully caught the Starship Super Heavy booster supporting the seventh flight test. After just four months, we re-flew that Super Heavy booster for the first time as part of Starship's ninth flight test, achieving this first Starship reuse significantly faster than the first Falcon reuse that took about one year.

SpaceX also deployed simulator Starlink satellites on two Starship flight tests this year. These deployments tested the system on Starship that will deploy operational Starlink and Direct to Cell satellites on future missions.

Next year, SpaceX will begin flying the next generation of Starship vehicles. These versions of Starship apply learnings from past flight tests and incorporate updated designs and hardware, including the Raptor 3 engine. Starlink will take full advantage of these enhancements and Starship's unprecedented payload capacity to deploy advanced satellites that not only add meaningful capacity for our current customers around the world... but can one day support our communication needs on the Moon and Mars.



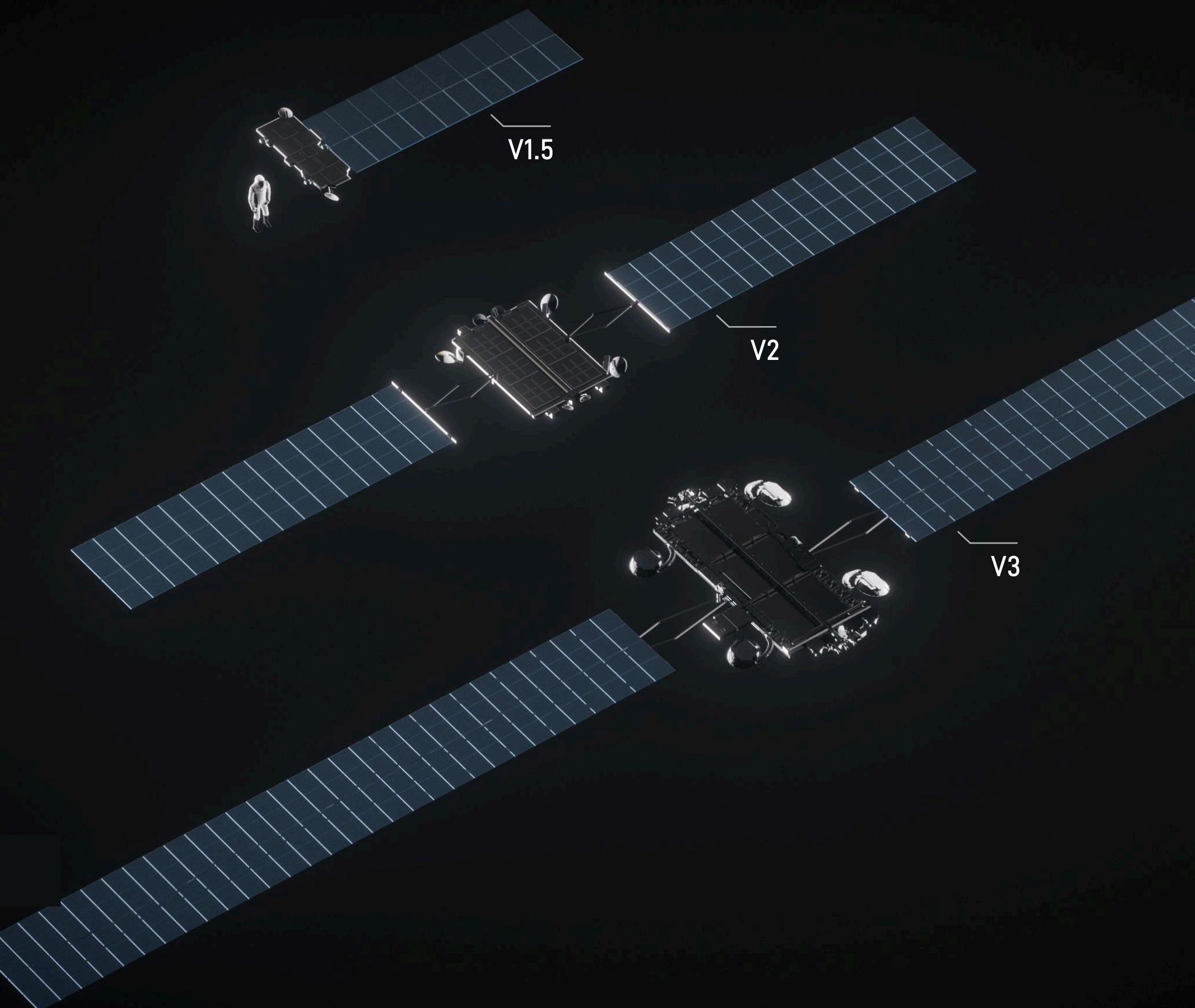
FUTURE

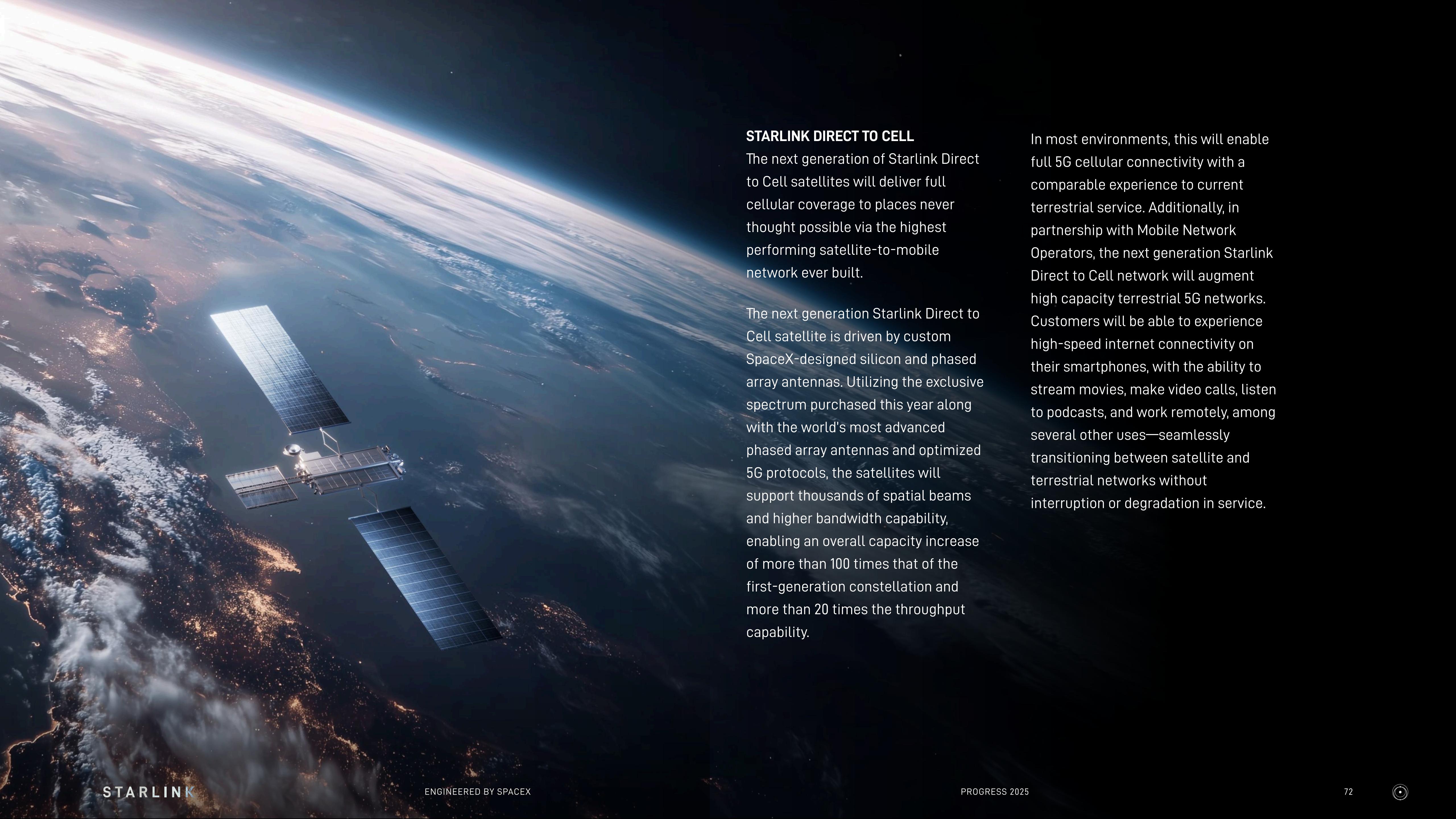
STARLINK V3 SATELLITE

Starlink continues to scale the network with its third-generation satellites and gateway ground stations. These advancements will add an order of magnitude improvement in capacity compared to the current satellite. SpaceX is targeting to begin launching its third-generation satellites in 2026. Each one of these new satellites is designed to provide over a terabit per second of downlink capacity (more than 1,000 Gbps) and over 200 Gbps of uplink capacity to customers on the ground. This is more than 10 times the downlink and 24 times the uplink capacity of the second-generation satellites.

Each Starlink launch of third-generation satellites on Starship is projected to add 60 Tbps of capacity to the network, more than 20 times the capacity added with each launch today. Additionally, third-generation satellites will use SpaceX's next generation computers, modems, beamforming, and switching and will operate at lower altitudes than previous generations to further improve the network's latency.

Starlink's system is designed to scale rapidly and improve continuously. From satellite design and production to launch and ground infrastructure, Starlink is uniquely positioned to keep pace with rising demand around the world, support the rollout of 5G and advanced services, and remain resilient in the face of natural disasters and infrastructure failures.





STARLINK DIRECT TO CELL

The next generation of Starlink Direct to Cell satellites will deliver full cellular coverage to places never thought possible via the highest performing satellite-to-mobile network ever built.

The next generation Starlink Direct to Cell satellite is driven by custom SpaceX-designed silicon and phased array antennas. Utilizing the exclusive spectrum purchased this year along with the world's most advanced phased array antennas and optimized 5G protocols, the satellites will support thousands of spatial beams and higher bandwidth capability, enabling an overall capacity increase of more than 100 times that of the first-generation constellation and more than 20 times the throughput capability.

In most environments, this will enable full 5G cellular connectivity with a comparable experience to current terrestrial service. Additionally, in partnership with Mobile Network Operators, the next generation Starlink Direct to Cell network will augment high capacity terrestrial 5G networks. Customers will be able to experience high-speed internet connectivity on their smartphones, with the ability to stream movies, make video calls, listen to podcasts, and work remotely, among several other uses—seamlessly transitioning between satellite and terrestrial networks without interruption or degradation in service.



FUTURE

Combined with Starship's unprecedented payload capacity to low-Earth orbit in a single launch, Starlink Direct to Cell's next generation service will —

Deliver unparalleled performance to standard, unmodified cell phones and IoT devices

helping to close coverage gaps and ultimately eliminate mobile dead zones around the world.



FUTURE

Millions of people around the world
are experiencing the transformative connections
Starlink brings to any location on Earth.

From serving business needs to IoT services to
personal communications with family and
friends to relaxing with your favorite form of
entertainment...

Thank you to all our customers.

Our journey is just beginning.

