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May 24, 2019

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BuzzFeed.News

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BBC

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An Update on How We Are Doing At Enforcing Our Community Standards

The Verge

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Elon Musk has tepid optimism that his rocket company SpaceX will be the company that delivers cheap satellite-based internet to the masses — finally turning a longtime industry fantasy into reality.

A major milestone will come Thursday night when SpaceX attempts to blast the first 60 satellites of its broadband megaconstellation into orbit. Liftoff is scheduled for sometime between 10:30 pm and midnight ET. The launch was supposed to happen last week, but was delayed.

The project is called Starlink, and SpaceX hopes hundreds more satellites will be added in the coming years.

Musk is keeping expectations in check: "There's a lot of new technology. This is very hard," he said of Starlink during a conference call with reporters last week. "This is definitely a case where good fortune is needed."

SpaceX says that Starlink could offer cheap and speedy internet for a significant number of people worldwide who are still offline, and provide a competitive option for people unhappy with their current service.

Philadelphia Inquirer

Verizon stopped paying local N.J. taxes. Now, a powerful legislator wants to sock it to the company

Pittsburgh Post-Gazette

<u>Tuned In: Cable, streamers set</u> <u>summer series premier dates</u>



BCAP offices will be closed Memorial Day Monday May 27 Musk said he expects Starlink to bring in up to \$30 billion per year, which could fuel the company's other ambitious ventures.

But it's not clear whether Starlink will actually be as lucrative as SpaceX hopes. There's also tough competition in the wings, including from Jeff Bezos' Amazon, which unveiled its satellite internet plans last month. And OneWeb, which is backed by giants like Qualcomm and SoftBank, recently launched its first six satellites.

Successfully launching 60 satellites would put SpaceX comfortably in the lead. But a lot still has to go right.

The company has tested two Starlink demo satellites, but never has it launched such a jam-packed rocket. The devices will have to deploy safely on Thursday and prove they can function properly. Then, it will take another 24 launches, all carrying around 60 satellites, over the course of several years to put up enough satellites for nearly global coverage.

Funding a \$10 billion project

There's no clear picture of how SpaceX or its competitors will endure the enormous estimated costs of building their megaconstellations.

Such a venture has bankrupted other companies. SpaceX recognized that when it laid off 10% of its workforce earlier this year to streamline costs.

Starlink is expected to cost at least \$10 billion to develop.

The company says it's currently on strong financial footing. But SpaceX is privately held, so there isn't a lot of information out there about how money moves through the company. Here's what is known:

Musk said last week that SpaceX has "sufficient" funds to get Starlink off the ground — "but of course if things go wrong and there are unexpected issues, we'd need to raise more capital."

SpaceX brought in nearly \$1 billion in two recent funding rounds, bringing the company to a \$30 billion-plus valuation.

When it comes to spaceflight, however, "unexpected issues" are practically inevitable.

Sohail Prasad, the founder and president of Forge, a digital private equity marketplace, said SpaceX's current standing among investors is impeccable.

"They have a very strong base of institutional investors," Prasad told CNN Business. And because SpaceX has already proven its reusable rocket technology after years of hangups, the company is in a good position to convince its investors it can succeed at this, too, Prasad said.

It all depends, however, on just how rocky things get: A serious setback could bring "into question the viability of the entire Starlink project," Prasad said. "With any company that's pursuing such ambitious goals, really making sure investors continue to have confidence in the ability of the company to meet those goals is super important."

The overall health of SpaceX also depends on a big revenue boost for Starlink.

SpaceX's core business of launching rockets is the most successful in the world — but it's not growing quite like the company once hoped, according to a recent Space News report. Musk said last week that revenue from launch contracts "taps out around \$3 billion per year."

Musk has long anticipated that Starlink will bring in far more money, providing a wellspring of funds for Starship rocket development and reaching Musk's far-out dream of sending people to live on Mars.

There are, however, doubts that Starlink will bring in anywhere near that type of cash.

Shagun Sachdeva, an analyst at Northern Sky Research who studied Starlink's 10-year outlook, said SpaceX will be "nowhere close" to reaching \$30 billion in annual revenue during that time frame.

"At least in the near to mid-term future, \$30 billion per year is not even the total market demand," Sachdeva said via email. "As in, if we were to assume that SpaceX is really the only constellation that will launch and all the revenues were to go to them," they would still fall far short of reaching that type of revenue.

SpaceX did not respond to questions about Starlink's revenue outlook.

Trials and failures

A long-running belief in the tech sector is that spaceborne internet is the only way to bring the whole world online. It would be too expensive, the thinking goes, for ground-based systems to reach rural areas or impoverished communities.

But the history of businesses trying to beam cheap internet from space is littered with expensive disappointment.

In the 1990s several well-funded ventures attempted internet constellations, including a company backed by Microsoft billionaire Bill Gates, called Teledesic. There was talk of a "new space race" and changing the world with ubiquitous connectivity.

But by the early 2000s, all of those projects either threw in towel or drastically changed their plans after undergoing bankruptcy. They realized their expenses would grow so large that their final product would get little demand "beyond fishing boats and oil rigs," according to a media report from 2002.

Two ventures, Iridium and Globalstar, survived bankruptcy by scaling back their constellations and instead selling pricey data services to satellite phone operators, like those used by emergency and rescue workers, and other corporate customers.

Ever since, consumer internet access has continued a slow expansion through ground-based technologies. The United Nations said in December that roughly half the world's population is still offline.

Meanwhile, things have changed for the space industry. Big time.

Satellite technology is far cheaper and more advanced. And, thanks primarily to SpaceX, the price of launching payloads into orbit has plummeted.

But the new batch of satellite broadband wannabes will be tasked with avoiding the pitfalls that sank their predecessors: Figure out how to economically mass produce satellites, offer an affordable internet service that can match the speeds of cable and wireless — and avoid Chapter 11 along the way. – *CNN Business*



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