

Iridium ends legacy satellite service, switches all traffic to Next fleet

by [Caleb Henry](#) — February 6, 2019



Iridium Communications completed deployment of its Iridium Next constellation with the Jan. 11 launch of the final 10 satellites in the system. The constellation consists of 66 operational satellites and nine on-orbit spares. Credit: Thales Alenia Space artist's concept.

WASHINGTON — With its full second-generation constellation now in orbit, Iridium has transferred all its communications services off of its two-decade-old legacy fleet.

“For the first time since the initial launch of the system over 20 years ago, zero traffic is going through the old satellites,” Matt Desch, CEO of Iridium, said Feb. 6 at the National Press Club here.

The final two satellites in Iridium’s new fleet, called Iridium Next, entered service Feb. 5 at 2:15 p.m. Eastern, completing a refresh that began as the legacy fleet started to lose operational capability.

Desch said Iridium had already run out of spares and had lost one operational satellite by the time SpaceX launched the first Iridium Next satellites in January 2017.

“We were really operating a satellite short,” Desch said.

While Iridium was relying on 65 satellites instead of a nominal 66, the company had small service interruptions limited to “a few minutes outage once or twice a day” in areas where the satellite was absent, Desch said. The interruption was so minimal that customers were unaware, he said.

Iridium now has 75 satellites in orbit — 66 operational plus nine spares — and six spares on the ground. Desch said Iridium projects a lifespan of 15 years or more for the Iridium Next satellites.

European manufacturer Thales Alenia Space built Iridium Next, while Orbital ATK (now Northrop Grumman Innovation Systems)

assembled and integrated the satellites in Gilbert, Arizona. SpaceX launched the entire constellation on eight Falcon 9 launches over the course of two years, with the final mission occurring Jan. 11.

Whereas the legacy fleet from Motorola and Lockheed Martin was designed mainly for voice communications, Iridium Next is optimized to support substantially more data services. Iridium announced Jan. 6 a transceiver with 35 times the data speed of existing devices. Desch said the device will be available mid-year to select ground segment manufacturer generally available by the end of the year.



Matt Desch, Iridium CEO, speaking Feb. 6 at the National Press Club in Washington. Credit: SpaceNews/Caleb Henry

Desch said Iridium has “deboosted” 52 legacy satellites, a process that involves lowering their orbits to catch the Earth’s atmosphere and burn up. So far, 47 legacy satellites have reentered, Desch said.

Iridium will deorbit the last 13 legacy satellites over the next few months. Desch said the average time between deboosting and complete deorbiting is 19 days.

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Julien • a year ago

Great news. I find it amazing to see where satellites are positioned in real time and how the new ones are replacing the old ones. Just a few weeks ago, there was a flock of 10 NEXT sats flying in formation and now they're already in position.  [View](#) — uploads.disquscdn.com

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MakiMaki001 → Julien • a year ago

Thank you for sharing this.

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Rabbit • a year ago

I will miss the Iridium flash. Kudos to a responsible company that disposes of their old hardware properly.

3 ^ | v • Reply • Share ›

perilun • a year ago

Great success story for Iridium, SpaceX and sat maker (I just with that could have been US as well). Hopefully the SpaceX folks are taking some lessons from this ... given that Starlink is now badly lagging they might want to hire some newly available Iridium and Thales people (vs Microsoft people - what were they thinking???)

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Jeff Smith → perilun • a year ago

Iridium is one of the few “90s New Space” companies left -

and congrats to them for finding a way to succeed. There are very few "new" businesses in space thus far, we need every single one we can get. The fact they are on their 2nd gen means after all the the hype and the crash, we can get at least a few enduring companies. I don't know how many we really need to achieve some kind of critical mass for space commerce, but the more, the better!

Congrats again!

7 ^ | v • Reply • Share ›

Andy → Jeff Smith • a year ago

They also operate on a frequency band that is generally unaffected by weather, something starlink and oneweb won't be able to match so they have a business that should last for many more years. Here is to hoping the new birds hold up as well as the original birds did.

3 ^ | v • Reply • Share ›

Hassan → Jeff Smith • a year ago

The Iridium of today is not really the same company as from the 90s. The original iridium assets were bought out of bankruptcy <https://en.wikipedia.org/wi...>

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Terry Stetler → perilun • a year ago • edited

"Starlink is now badly lagging they might want to hire some newly available Iridium and Thales people "

SpaceX stole most of Broadcom's team, to the point Broadcom sued (but lost.)

As for StarLink "lagging," not according to this recent FCC filing (and the fact they have 2 test satellites up),

<https://fcc.report/IBFS/SES...>

... SpaceX intends to begin launching satellites to populate its constellation in 2019.

In this application, a sister company, SpaceX Services, Inc. (SpaceX Services) seeks a blanket license authorizing operation of up to 1,000,000 earth stations that end-user customers will utilize to communicate with SpaceXs NGSO constellation.

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perilun → Terry Stetler • a year ago

Broadcom + Microsoft was the initial team ! ... still makes we wonder what Musk was thinking.

They need to get a test constellation in the air this year

they need to get a test constellation in the air this year ... I don't see how FCC paperwork builds or tests anything. But the potential good news is that SpaceX is projecting 24 launches in 2019 ... even though there are only 19-20 potential gov't and commercial flights. Folks are guessing that those 4-5 flights might be the Starlink test constellation. It's a make or break year to meet that FCC deadline.

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Gary Camp • a year ago

I worked on the Iridium sats in final test 20 or so years ago. You can't believe how accurate the repeatability was. 1/2 DB. I was used to + or - 6DB on consumer products. I am not an RF guy so maybe I just didn't know...

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