The Edge of the Cloud is Now in Space

ST. PETERSBURG, FLORIDA, UNITED STATES, February 3, 2022 /EINPresswire.com/ -- Lonestar Data Holdings Inc. (Lonestar) announces the first ever software defined payload sent to the International Space Station (ISS) enabling successful data storage and edge processing tests on the ISS.

Lonestar's successful data storage and edge processing test in LEO and on the ISS are a stepping stone for the company as it moves forward with its plans for data at the edge. This year Lonestar is planning more tests that go farther than data centers hav

The first software defined payload was sent to the ISS December 17th 2021. Crucially, it leveraged existing hardware on the ISS retasking an existing computer server on board to become an edge of network node. The server was reconfigured to launch a Canonical Ubuntu virtual machine that stored data and ran an application that blockchained the results, which were sent back to Earth.

"People asked us, why does your payload have no mass? We responded by asking, 'what if every piece of hardware on orbit could be retasked to new uses at maximum efficiency?,'" said Chris Stott, Founder and CEO of Lonestar.

> Thanks to the professionalism, vision and hard work of our superb partners, we hope we just kicked off a revolution in Low Earth Orbit. We successfully merged cloud & space verticals on Space Station."
>
> *Chris Stott*

Lonestar is working to bring data services to the edge and will publicly announce more detail on its plans in the near future. The ISS provided a perfect proof of concept as a research and development platform for the company and its partners to demonstrate the concept of space-based data storage and edge processing.

Low Earth Orbit and the ISS are a stepping stone for the company as it moves forward with its plans for data at the

edge. This year Lonestar is planning more tests that go farther than data centers have ever gone before.

Several companies aspire to put data center functions into Low Earth Orbit and Lonestar's test validates this concept no matter where on the edge your data center is in space.

Further, it demonstrates the potential of leveraging underutilized on-orbit compute resources to their maximum efficiency via the application of software defined payloads - a potential inflection point in orbital commerce and efficiency.

Lonestar Logo

"Thanks to the professionalism, vision, and hard work of our superb partners, we hope we just kicked off a revolution in Low Earth Orbit. We successfully merged cloud and space verticals on the International Space Station. If we can do this in LEO, imagine what we can do elsewhere," said Stott.

The successful Lonestar demonstration mission included pivotal contributions from the digital artist Cecilie Waagner Falkenstrøm and her software team at ARTificial Mind with Niels Zibrandtsen of the Mind Future Foundation, open source software leader Canonical Ltd., and space commercialization leader Redwire Space. ARTificial Mind provided the digital content and blockchain capabilities. Canonical provided a unique "edge of network" kernel of Ubuntu Linux, the leading operating system for container, Cloud and hyperscale computing, to operate on the constrained space hardware aboard the ISS. Redwire Space leveraged their existing server hardware on the ISS from their microgravity 3D printing capability. Lonestar brought the concept and the team together in support of its customers in its work to bring data to the edge.

"Our team was able to move quickly and smartly to leverage underutilized resources in a novel way," said Dr. Mark Matossian, Lonestar COO. "And we applied a modern cloud computing virtual machine solution with advanced blockchain technologies."

The combined effort broke new ground in using the art created in a virtual machine to demonstrate data storage, onboard space processing, and edge of network computing as a prototype of lunar-based cloud services.

Immutable data was also stored for the Arch MIssion and the Angiogenesis Foundations.

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About Lonestar
Lonestar Data Holdings Inc. (Lonestar®) has been founded by a proven team of experts from the Cloud and Space verticals to pioneer a future for data at the edge for all of us. Lonestar is fueled by remarkable and visionary investors led by Scout Ventures, Seldor Capital, and 2 Future Holding.
www.lonestarlunar.com

Image caption: Lonestar's successful data storage and edge processing test in LEO and on the ISS are a stepping stone for the company as it moves forward with its plans for data at the edge. This year Lonestar is planning more tests that go farther than data centers have ever gone before.
Image source: NASA

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