Arkisys and iBoss team up to enable orbital ‘Bosuns Lockers’ for students to develop payload access for The Port

LOS ALAMITOS, CA, UNITED STATES, June 16, 2025 /EINPresswire.com/ -- Arkisys™, a provider of on-orbit services on a stable long duration platform for post launch applications, will be participating in the COSMIC Capstone Challenge (C3) for university students to participate in new innovations, starting in the Fall. This initiative will invite students to explore innovations in In-Space Servicing, Assembly, and Manufacturing (ISAM), offering unique access to Arkisys “Bosun’s Lockers” and iBOSS® iBLOCK technologies.

Arkisys will be working with the COSMIC Workforce Development team to lead one of four primary project applications for the 2025-2026 university-based COSMIC Capstone Challenge (https://cosmicspace.org/c3/). In 2023, NASA established the Consortium for Space Mobility and ISAM Capabilities (COSMIC) to bring academia, industry, and government together in order to advance ISAM capabilities, and has grown to include over 1100 members from 250 different organizations.

Designs for Arkisys “Bosuns Lockers” will be provided to all student teams to enable robotically transferred payload modules to the Arkisys orbital platform (or Port) to support manufacturing, assembly, in-orbit test and other ISAM applications. These lockers describe any encapsulation approach that can be transported and then manipulated on the Arkisys Port Module. They represent a family of encapsulation capabilities for any payload.

“Bosuns Lockers are meant to describe a growing family of encapsulation elements that any company, university or Government organization can select from that enables transportation and in-orbit manipulation of their payload for any application,” says Noah Gladden, Arkisys Manufacturing Engineer. “Arkisys wants to enable the lowest cost, simplest method for anyone to fly to our Ports and start to build their business, technology or applications without having to build their own satellites to do so.”

iBOSS® is the first official partner to sign on to be part of a family of preconfigured connectable elements that can support hosting any payload or component for potential growth in orbit post launch.

“The iBOSS® collaboration was a natural fit,” said David Barnhart, Arkisys CEO. “The iBOSS® iBLOCK™ is a technology that is meant for anyone to be able to build any type of space system

post-launch. The Bosuns Locker family is meant to shift from the tyranny of being hosted inside a spacecraft with no chance of growth or change, to one of unlimited potential growth… the iBLOCK is another step in that direction," Barnhart says.

Arkisys enabled an integrated and dedicated post launch connectable interface, the iSSI™ on the LS-3 (Sidus Space) mission, one of the connectable interfaces approved for the Arkisys Port Module platform. We believe Sidus is the first spacecraft provider to fly a connectable interface that could allow for post launch modification or augmentation.

"Our iBLOCK's were created to enable a customer to build any type of space system on orbit," says Thomas Schervan, CEO and Co-Founder of iBOSS®. "They are made to house any type of payload or space component technology, and with our iSSI® (intelligent Space System Interface) connectors on multiple sides, they can be aggregated into any type of new structure in space".

"We are thrilled to support Arkisys on this quest as it represents a true step into ISAM applications," said Joerg Kreisel, Chairman and Co-Founder of iBOSS®. "Arkisys has been testing the integration of technology and payloads using our iSSI® interface on its ground test bed. Teaching students today while the technology is growing on how post-launch modifications and enhancements can be done will foster a new generation in long-term sustainability of space operations."

Arkisys will provide a 3D-printable version of the Bosuns Locker design for student teams and will offer prizes for winning projects during the Spring 2026 showcase. The challenge is open to university students across the country.

"The COSMIC Capstone Challenge (https://cosmicspace.org/c3/) is one of the first concerted efforts to educate and train the next generation of engineers and scientists today on how to build things in space" says Dave Barnhart. "As the space economy rapidly pushes toward a trillion-dollar frontier, the industry must shift from the throwaway culture of hardware launched today, to one of re-use and growth post launch. The Bosuns Lockers are meant to be a stepping-stone to enable hands-on experience from any company, university, or government today, to prepare for that future tomorrow."

About Arkisys:
Arkisys, Inc., located in Los Alamitos, California, is enabling any customer to enhance their growth and space capability, on orbit, post launch. Arkisys is a creator of spacecraft architectures and platform solutions that open up in-space services. By design, Arkisys offers affordable space-based services for any organization, company, Government and academic institutes interested in next generation on-orbit space-based commerce. We work with any system or subsystem provider to integrate their technology onto our Ports, and encourage and enable innovation in components, payloads and new mission growth, post launch.
For more information, visit http://arkisys.com/.

About iBOSS: iBOSS is an advanced space systems company providing flight qualified interfaces and coupling kits for the ISAM market. The iSSI® (intelligent Space Systems Interface) has been demonstrated in space in 2022 and is being used in a number of ISAM architectures.
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