

SpaceCloud® Framework

Presented by Unibap



SpaceCloud® is Unibap's hardware and software platform for unleashing the full potential of space systems. The platform brings traditional cloud computing to space by allowing containerized app deployment on in-orbit satellites to make them flexible and intelligent. On-board processing turns sensor data into real-time, actionable insights to make a difference when it matters. We have a diverse team of hardware and software engineers developing SpaceCloud® and we want you to join us!



Mattias Herlitz, Unibap Project Manager InCubed



The SpaceCloud® Framework offers the current state-of-the-art technologies of Cloud computing for the space segment. Utilizing the high-performance iX5 and iX10 payload computers, develop-ers can deploy applications to satellites and perform complex im-age processing directly on the satellite while in orbit. Combined with a scalable managed infrastructure, the SCFW simplifies all processes required to manage the lifecycle of satellites. Whether you are deploying a specialized mission or a constellation with numerous satellites, Unibap's hardware and software offerings will reduce the effort and time to launch as well as your maintenance costs.



SaraniaSat foresees numerous, exciting applications for Unibap's SpaceCloud® technology in combination with the terrestrial cloud.



Dr. Tom George, CEO Saraniasat

SpaceCloud® Value Proposition

- Maximized satellite utilization
- Faster Earth Observation insights
- Reduced maintenance costs
- Enables low latency data products
- Simplified satellite management
- Reduced effort and time to launch
- Secured data from intrusion

For more information go to unibap.com/spacecloud or contact our sales team sales@unibap.com



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Illustration of SpaceCloud on-orbit.





The SpaceCloud® Framework (SCFW) uses OS-level virtualization to sandbox and deploy applications on satellites. Application development for satellites no longer requires highly skilled embedded developers using low level programming languages. With SCFW enabled satellites, you can choose one of the many supported programming languages, your favorite machine learning framework and develop applications as you would normally do in any of the popular cloud infrastructure providers. Develop, test, package and deploy - four steps that used to take months, are now reduced to a few days or even hours.



Aris Synodinos, Unibap Systems Engineer & PhD Cand.

Benefits of SpaceCloud® Framework for developers

- Abstracted APIs to satellite sensors and Hardware
- Supports common programming languages (C, C#, python, etc)
- Revenue sharing model
- Reusability of applications
- Scalability to other cloud infrastructures
- Using common cloud libraries instead of specialized embedded tools and frameworks

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