



Press Release

Space Compass Corporation

*Space Compass to demonstrate Onboard Space Edge Computing with Microsoft*

**Tokyo, Japan, December 5, 2023** Space Compass Corporation, a joint venture between NTT Corporation (NTT) and SKY Perfect JSAT Corporation, agreed to jointly develop and demonstrate space edge computing applications on orbit with Microsoft.

This initiative is performed under the strategic alliance between NTT and Microsoft that launched in 2019<sup>\*1</sup>. Space Compass aims to establish space edge computing and thereby drive efficient and real-time observation satellite data utilizations by demonstrating actual data processing on orbit.

**What we are currently working on**

Space Compass and Microsoft are investing heavily to empower on-orbit development because current space-based solutions are straining to perform as demand scales. Take for example, the increasing demands for on-orbit remote sensing data. This demand is driving an increase in the volume of satellite-generated data being transmitted to the cloud and causing bandwidth congestion and increased latency as a result. Solving this problem at scale requires the ability to compute and analyze data before transmitting to the ground. The space onboard edge computing helps to solve such issues delivering strong business advantages, which include faster insights and improved response times.

Over the past 3 months, Space Compass has been working with Microsoft's Industry Software Engineering team. More specifically, the two companies established a "Co-Engineering" structure to develop applications on the Azure Orbital Space SDK (Software Development Kit)<sup>\*2</sup>



based on actual use-cases to demonstrate what space edge onboard computing looks like and how it works. The "Ship Detection Program", its first use-case on this project, will be demonstrated on the computing resources onboard Loft Orbital Solutions Inc.'s

satellite, YAM6, slated for launch in 2024. This demonstration is in preparation for its subsequent commercial use on the company’s own satellites.

\*1: December 10, 2019 Release: “NTT and Microsoft form a strategic alliance to enable new digital solutions” <https://group.ntt/en/newsrelease/2019/12/10/191210a.html>

\*2: Azure Space Orbital SDK November 17, 2022 Post <https://azure.microsoft.com/ja-jp/blog/any-developer-can-be-a-space-developer-with-the-new-azure-orbital-space-sdk/>

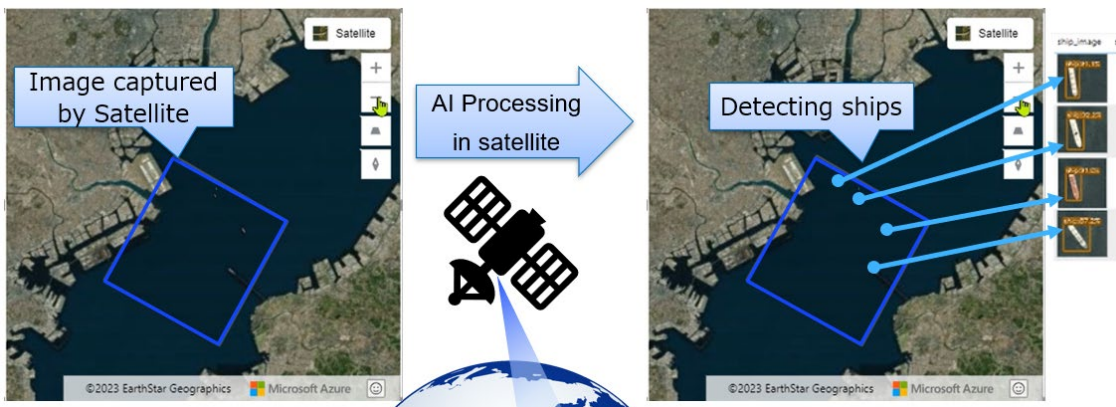


Figure. Ship Detection Program

### Message from Executives

"We are very excited to closely collaborate with Microsoft team to develop a cutting-edge space computing solution. This is one of our key initiatives to realize Space Integrated Computing Network."

**Shigehiro Hori, Co-CEO, Space Compass**

"Microsoft is excited to be working with Space Compass in exploring the uses of on-orbit processing, bringing AI insights to the edge in space. We look forward to collaborating and supporting Space Compass with the Azure Space product portfolio to achieve their vision for space relay and cloud connected data processing."

**Yves Pitsch, General Manager, Azure Space**

### Next Step

Space Compass will deploy space edge computing capabilities on orbit, together with ultra-speed optical data relay network, which allow space data users to utilize real-time data seamlessly and much more efficiently in the cloud environment. Furthermore, the two companies will expand the partnership into a wide range of space-related business



to explore how they can jointly innovate more advanced space-based data driven solutions to make the world a better place.

### **Microsoft's Azure Space Blog**

Azure Space Blog - Microsoft Community Hub: [https://aka.ms/AzureSpace\\_Blog\\_Dec2023](https://aka.ms/AzureSpace_Blog_Dec2023)

### **About Space Compass**

Space Compass is a joint venture company between NTT, Japanese Information and Communications Technology (ICT) leader, and SKY Perfect JSAT Corporation, Asia's largest satellite operator. We will launch a Space Integrated Computing Network to support the realization of a sustainable society. We are committed to improving our service by utilizing innovative technology including NTT's IOWN. For more information, visit our corporate website, <https://space-compass.com/en/>

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