



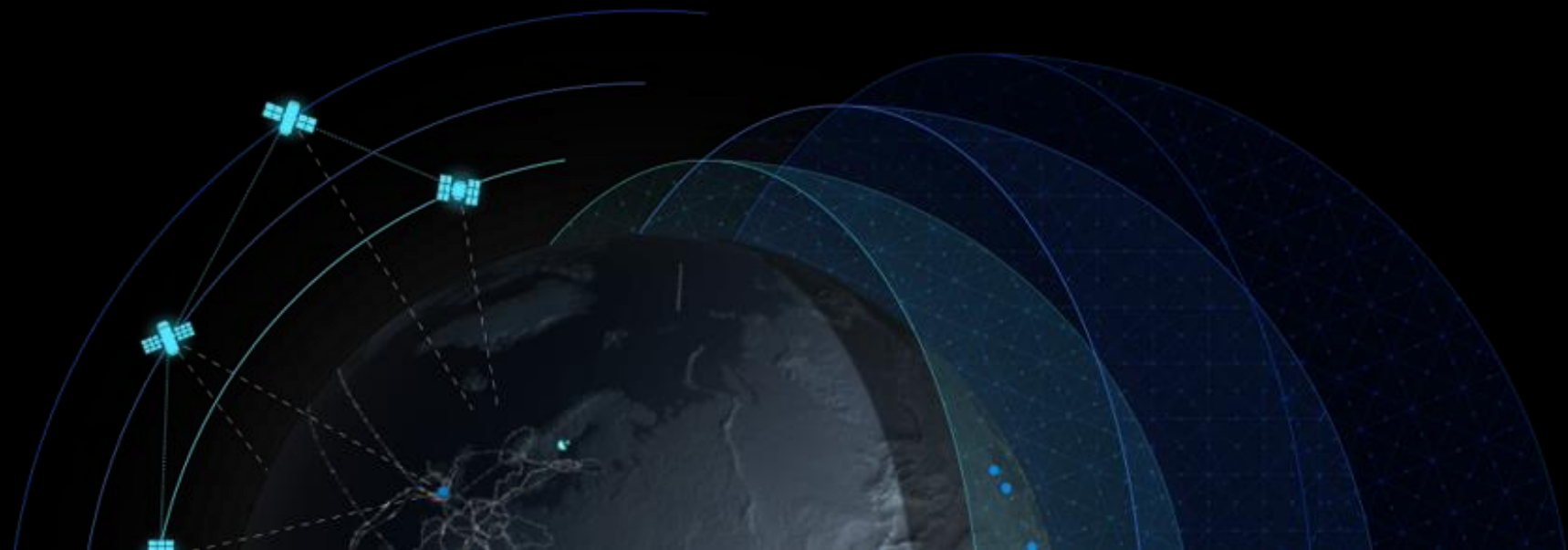
# Digital Transformation With the Space Industry

Denis Sutherland – Azure Space

Feb 2023

# Azure Space

Empowering every person and every organization  
on and off the planet to achieve more



# Space is Changing

## DEMOCRATIZATION

Access to space increasing / cost decreasing

Processing and proliferation increasing

## OPPORTUNITY

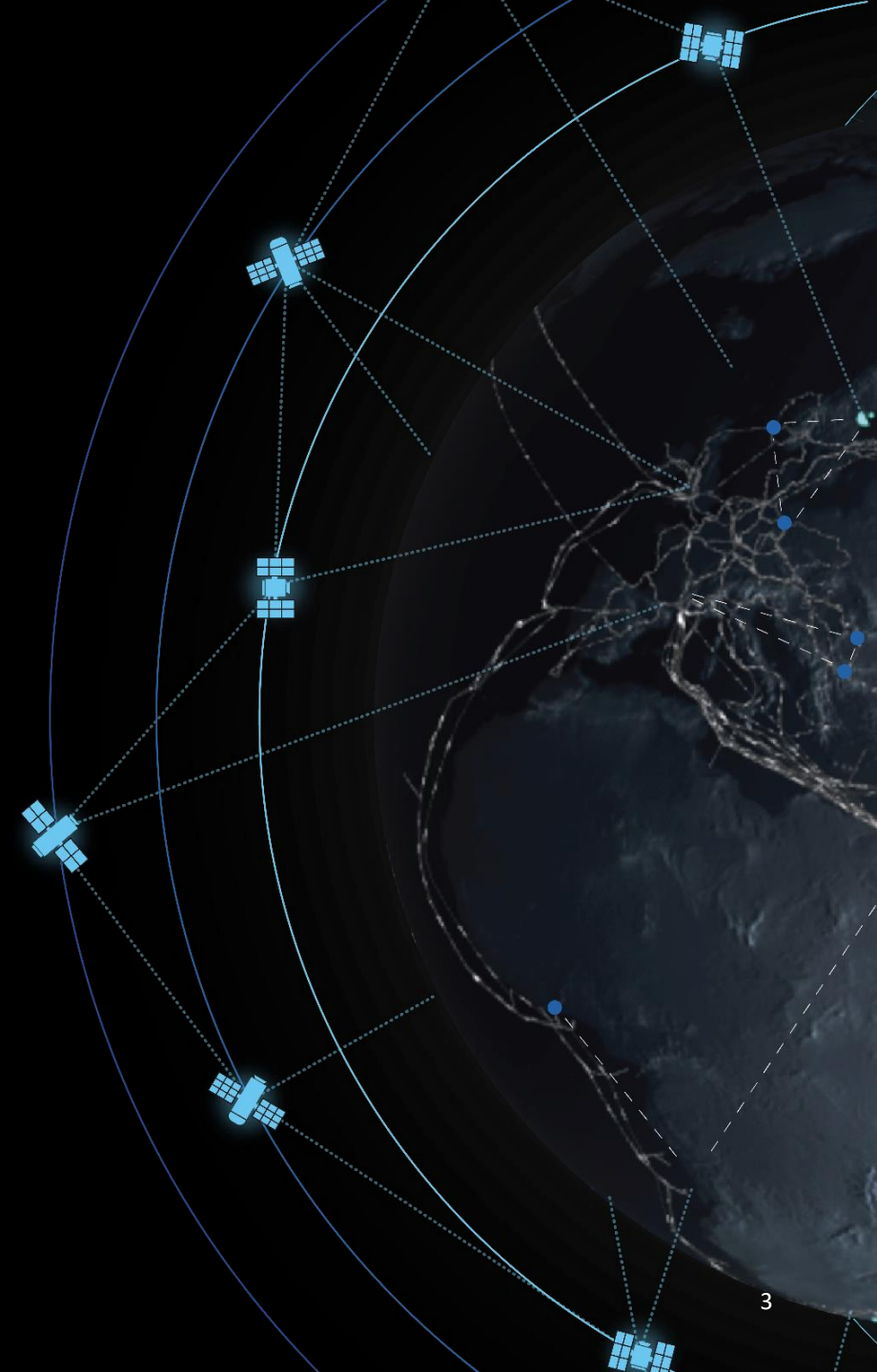
New missions – global connectivity, new sensors, deeper insights

New markets – farming, energy, public sector

## CHALLENGES

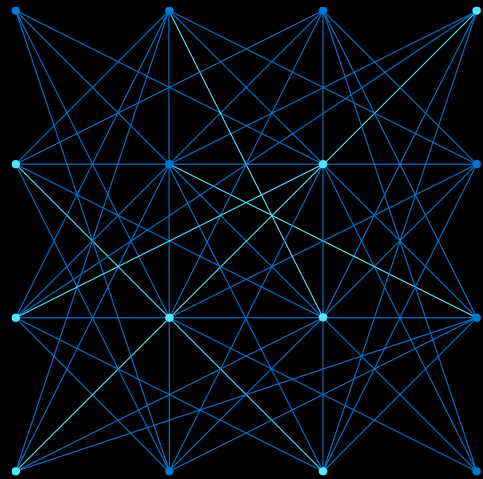
Harnessing the vast amount of data

Bringing cloud services and bandwidth to anywhere

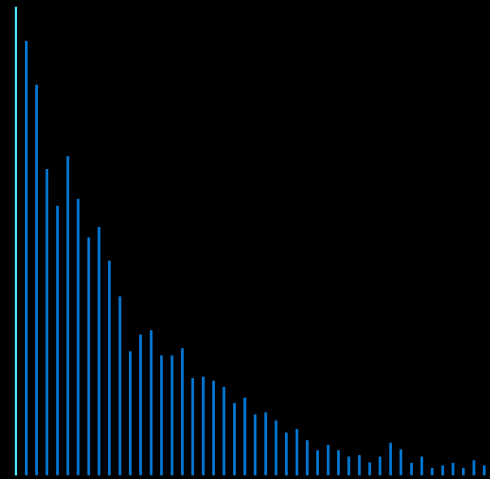


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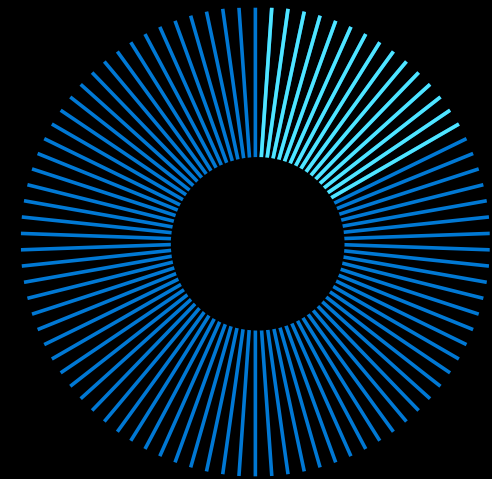
The platform and ecosystem of choice for the mission needs of the space community.



Extending connectivity



Discovering insights



Developing faster





Azure Space brings together the possibilities of space with the power of the cloud together with a growing partner ecosystem.

AIRBUS

SES<sup>^</sup>

Viasat

SPACEX

KSAT  
KONGSBERG SATELLITE SERVICES

Ball  
Ball Aerospace

KRATOS  
READY FOR WHAT'S NEXT

US ELECTRODYNAMICS, INC.  
INTERNATIONAL SATELLITE

KUBOS

esri

blackshark.ai

THALES

Orbital Insight

iDIRECT

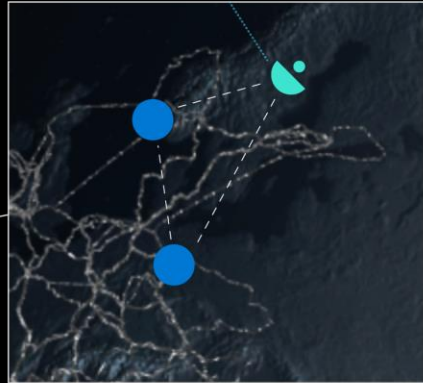
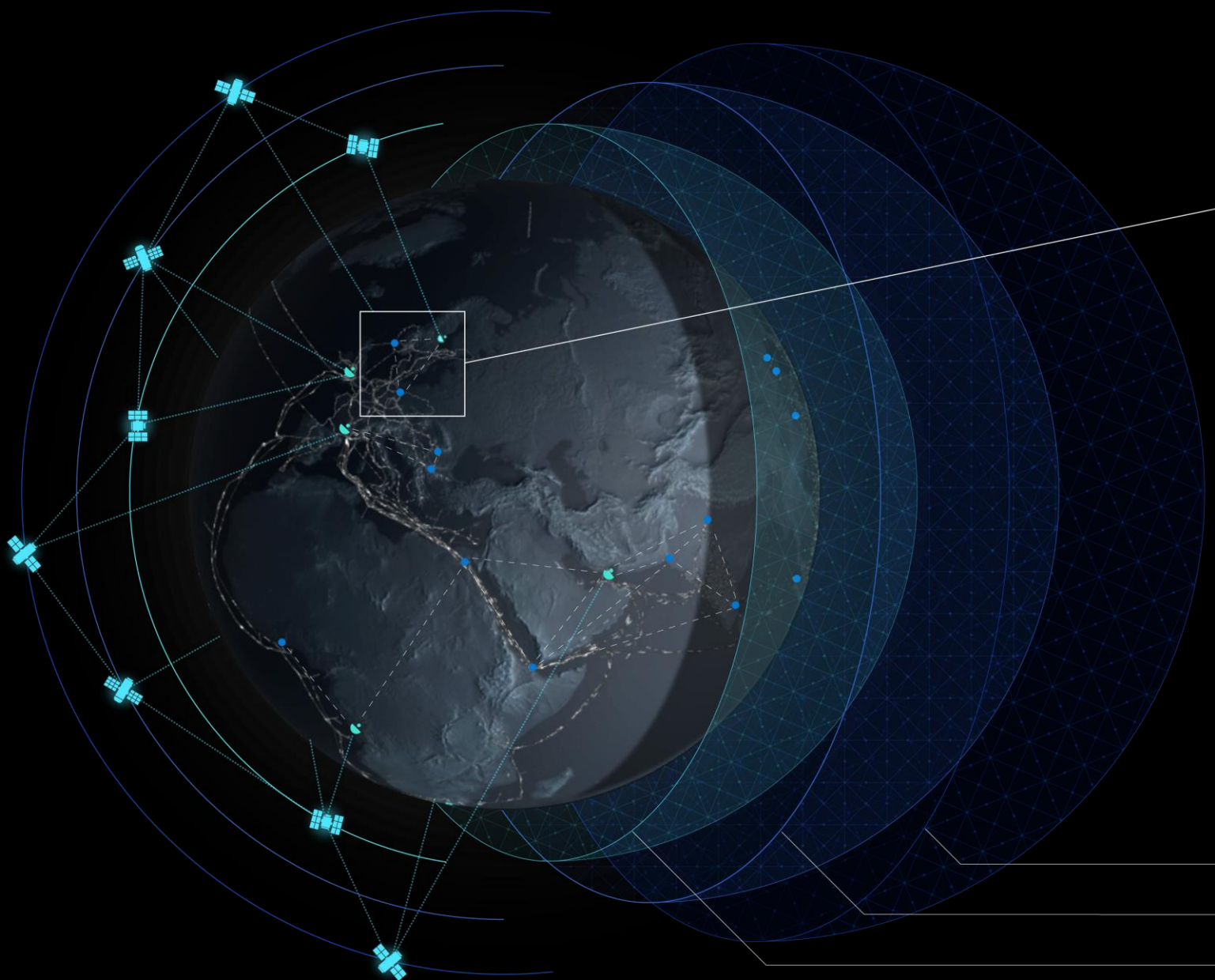
SPACE  
ISAC

DIFI

Hewlett Packard  
Enterprise

... and more

Azure Orbital  
US West-2 Datacenter, Quincy, WA



- Datacenter region
- Partner Ground Station

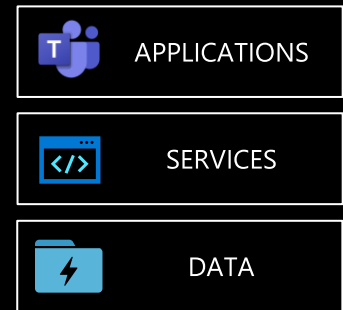
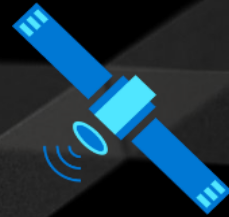
# Azure Orbital Ecosystem

Geosynchronous Orbit (GEO)

Medium-Earth Orbit (MEO)

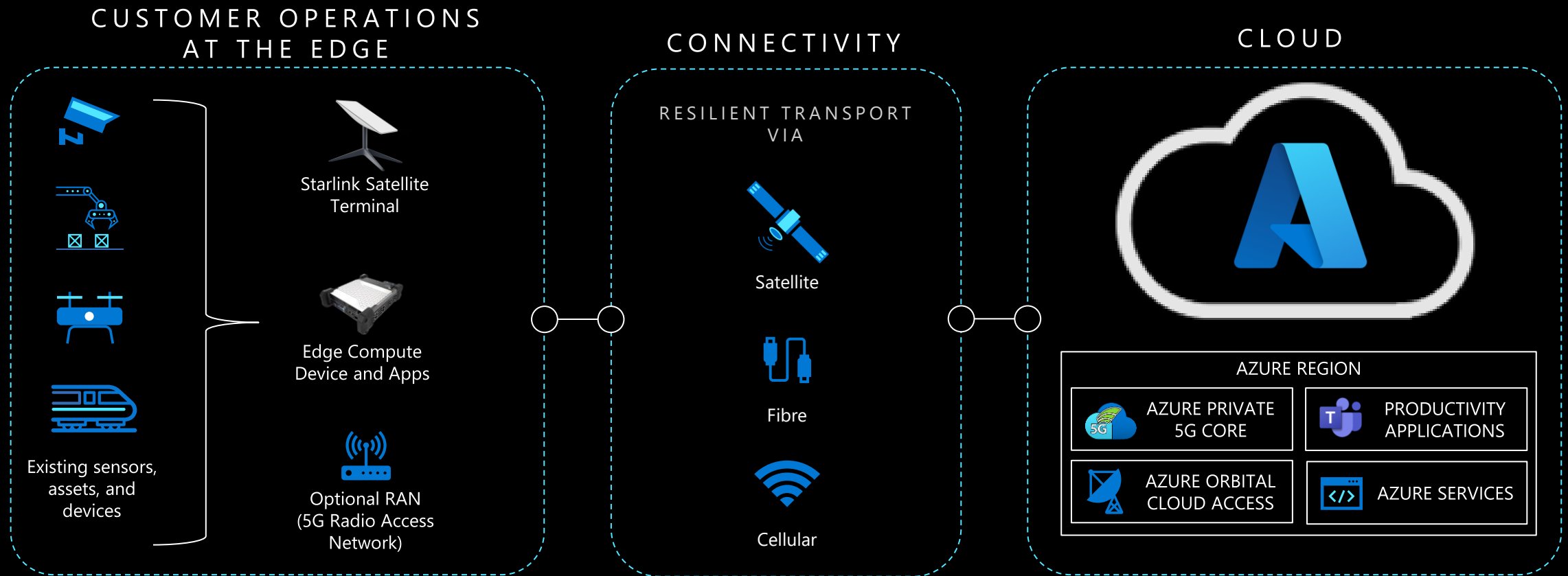
Low-Earth Orbit (LEO)

# Universal Operations



*Access to Assets, Data, and Services...  
Anywhere, Anytime.*

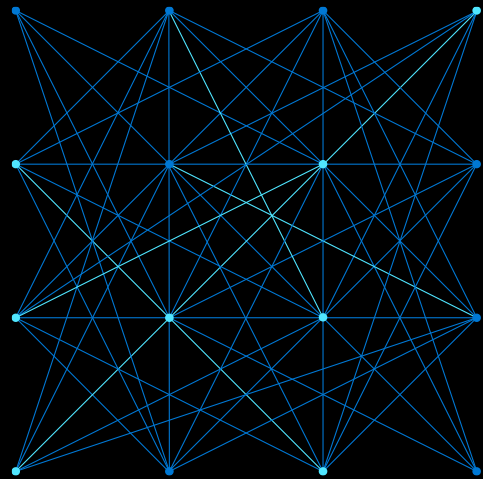
# Azure Orbital Cloud Access



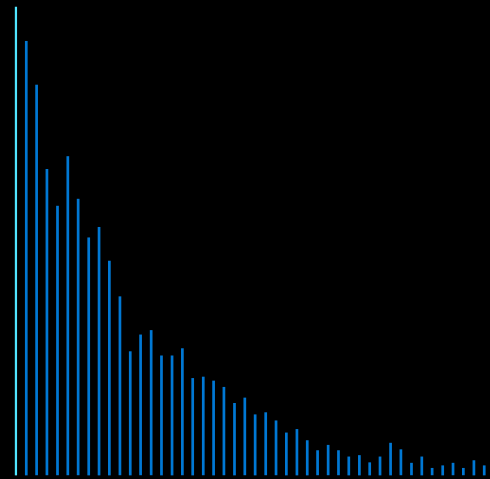


# Azure Space

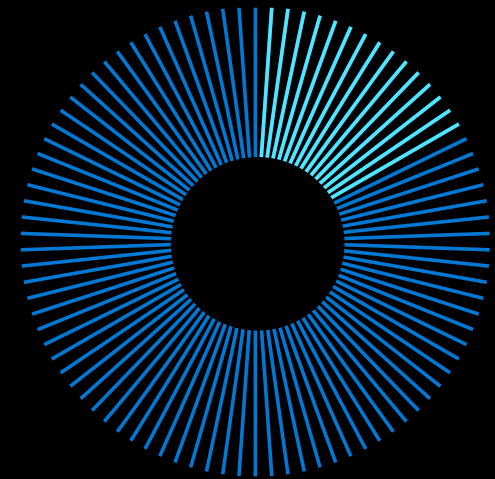
The platform and ecosystem of choice for the mission needs of the space community.



Extending connectivity



**Discovering insights**



Developing faster

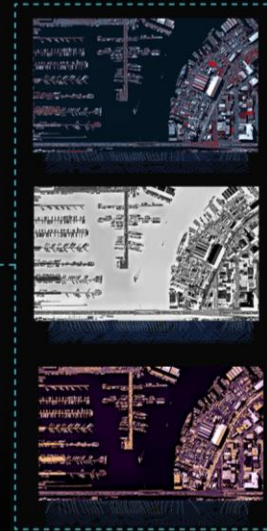
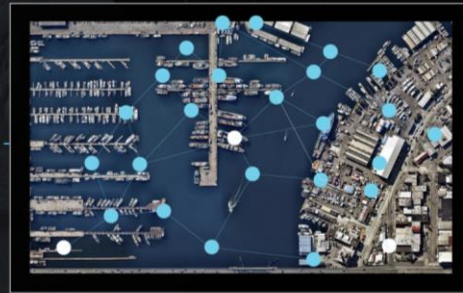
# 1 Capture

Satellites capture geospatial data and downlink to Azure Orbital.



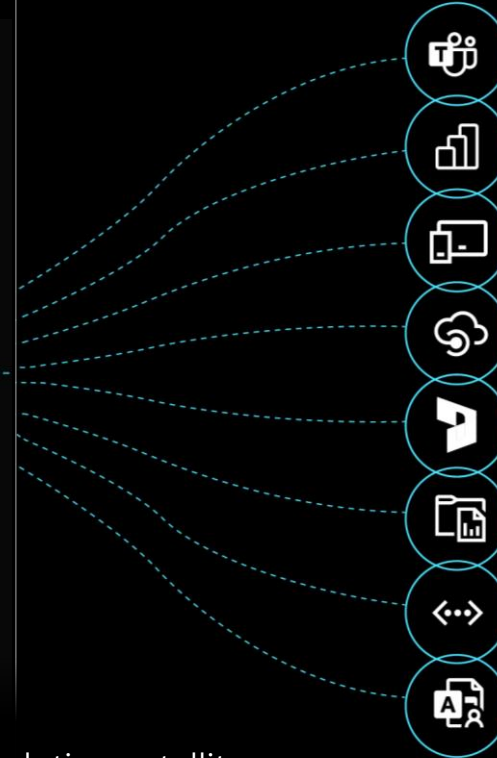
# 2 Machine Learning

Partner AI Models and Microsoft tools extract the highest precision results.



# 3 Endpoint Deployment

Data is delivered to endpoints such as Teams, Power Platform, Open Source.



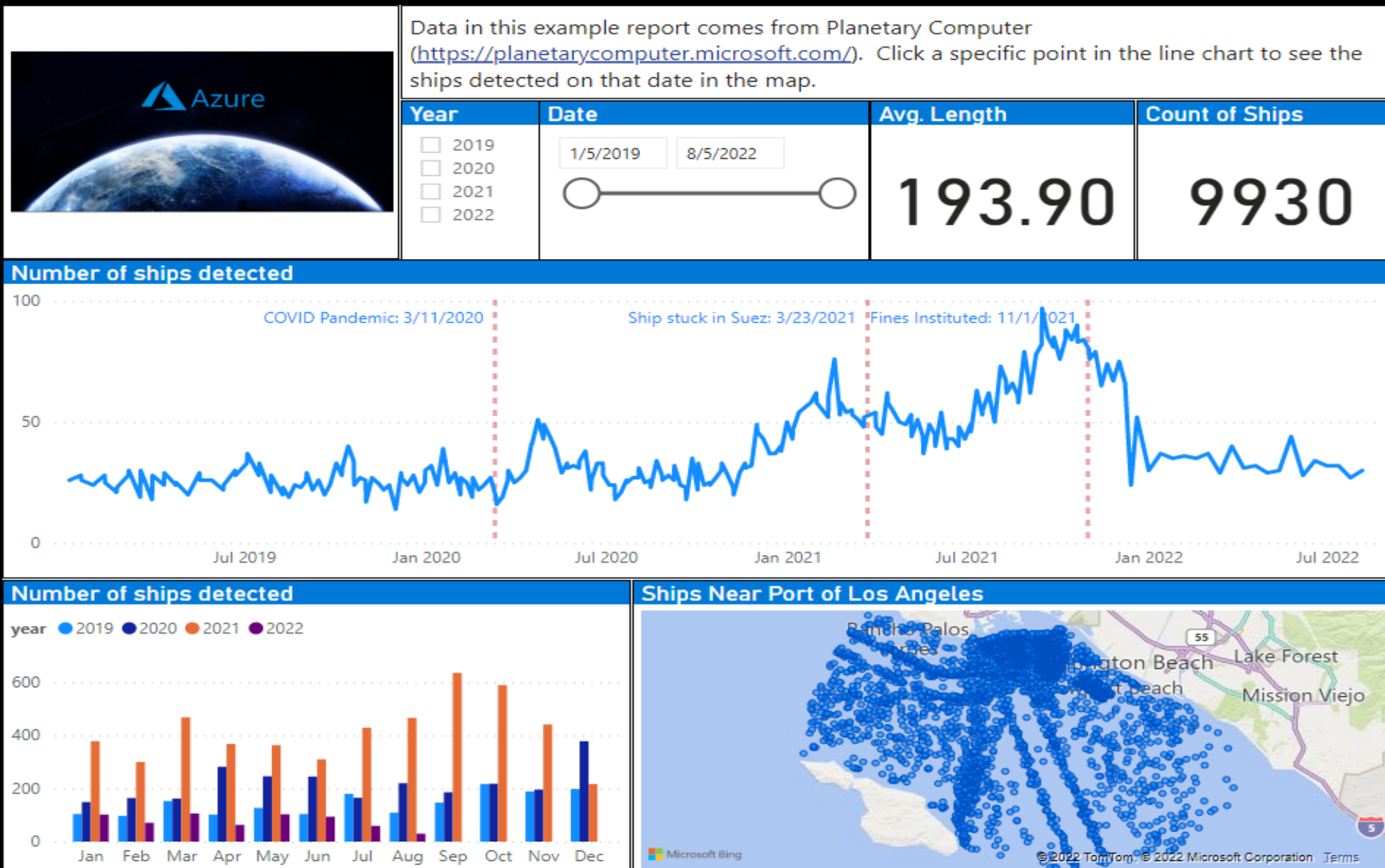
Azure Space, alongside our partners, can further understanding of the world through high resolution satellite data combined with industry leading AI/ ML and collaboration through Microsoft Teams and our world class enterprise services.



# Geospatial capabilities

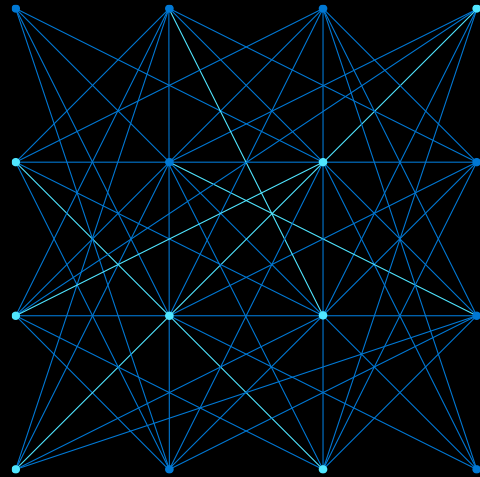


# Example Output – PowerBI Dashboard

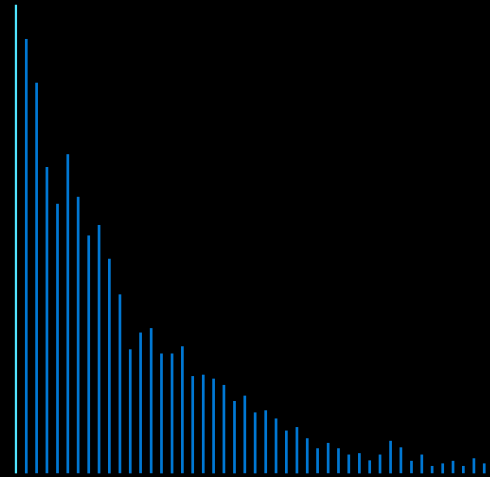


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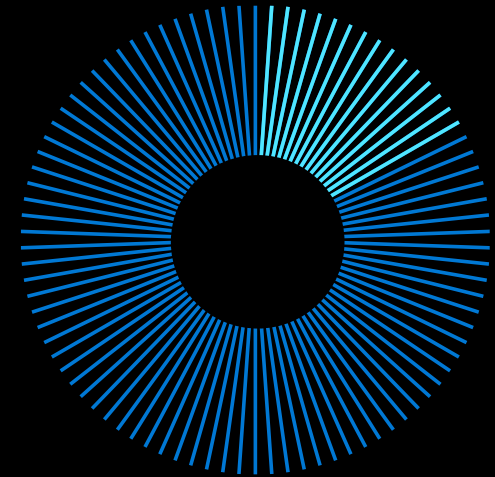
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Azure Space partners with the space community to harness the power of cloud computing at the ultimate edge.

"Connecting Azure to the International Space Station with HPE"



Microsoft offers the world's most comprehensive developer toolkit and platform



GitHub

56M+ developers



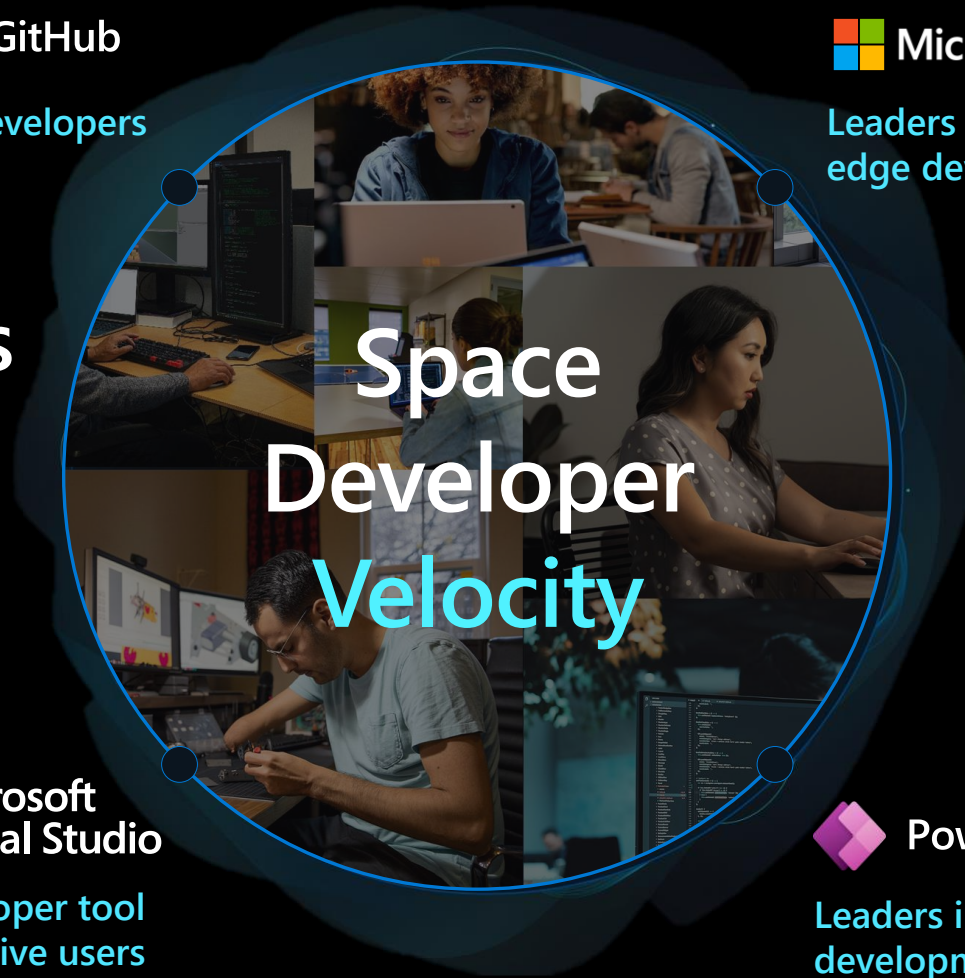
Leaders in secure cloud and edge development



#1 developer tool  
25M+ monthly active users



Leaders in low-code development platforms



# Microsoft On-Orbit Compute Vision

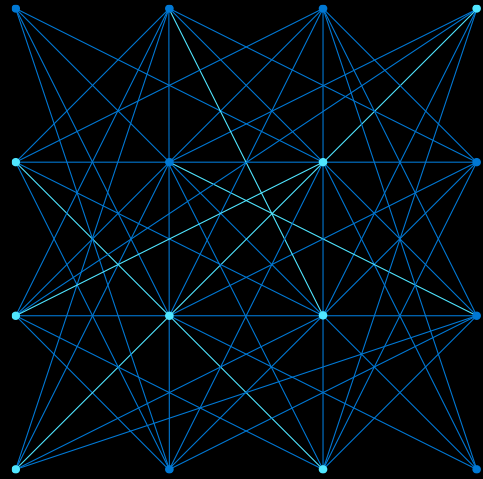
Enabling developers of on-orbit workloads to leverage Azure services and the productivity of our developer story, to develop, analyze, deploy, and operate space applications more rapidly. Reducing the need for custom solution and the space-based barriers to entry.

1. **Develop and Test on the ground**
2. **Deploy and Execute on-orbit**
3. **Disseminate and Generate insights across the cloud**

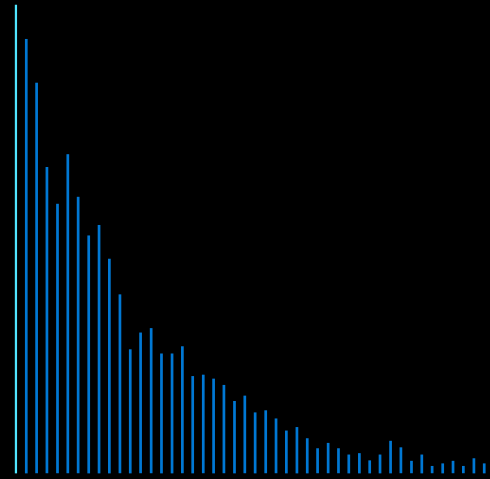


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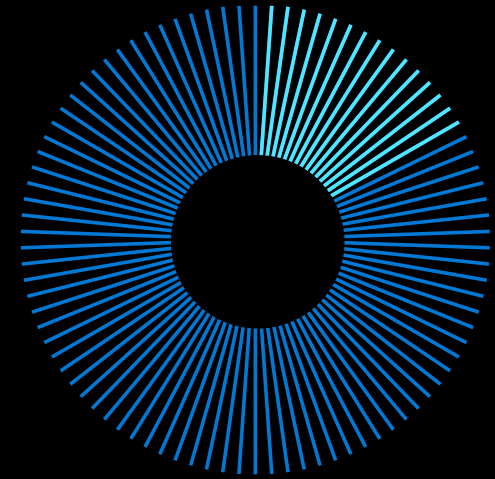
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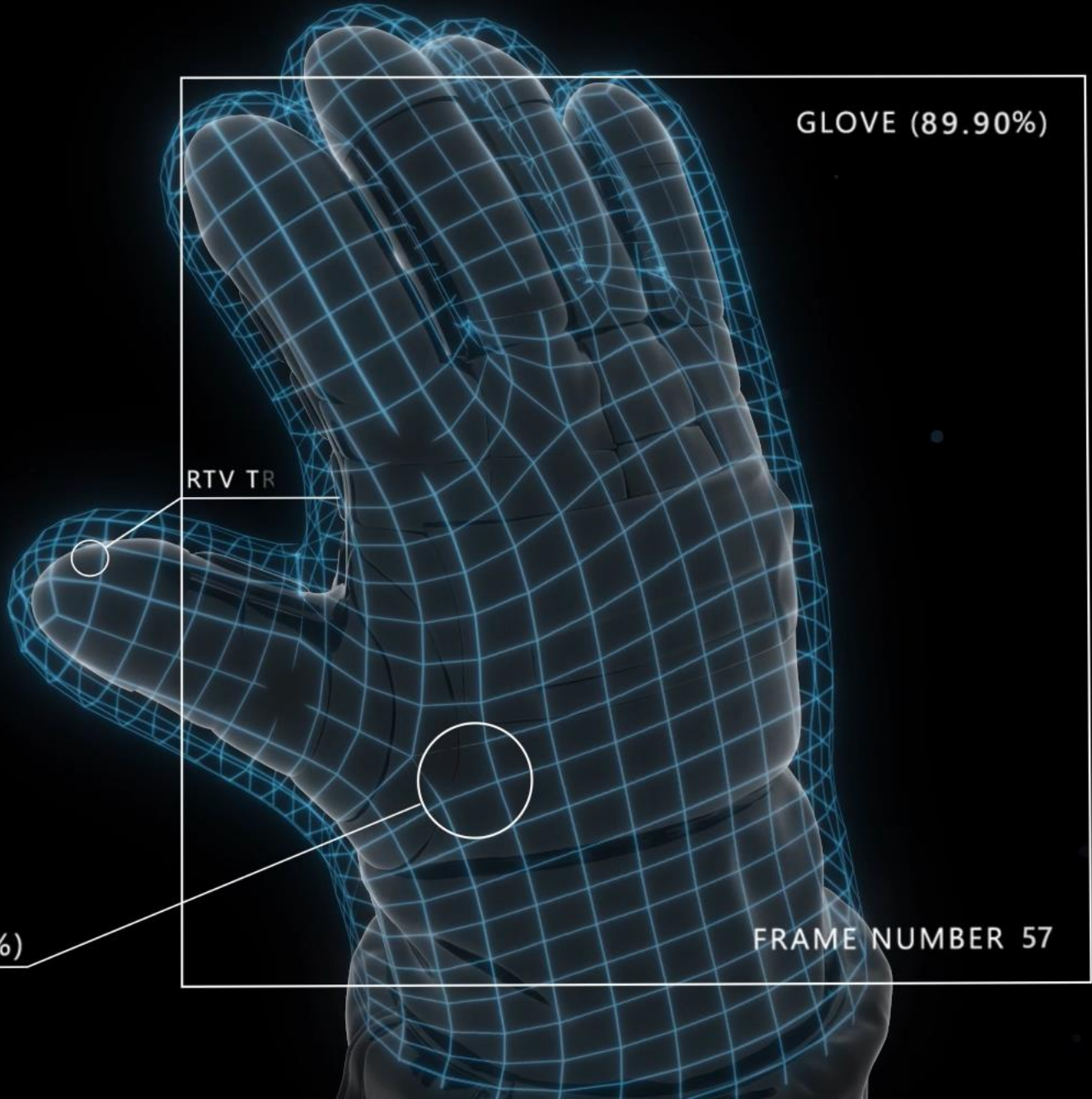


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Denis Sutherland

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GLOVE (89.90%)

RTV TR

RTV WEAR (65.55%)

FRAME NUMBER 57