

# Cloud-Enabled TT&C as a Service

Katherine Monson

CEO, KSAT Inc.

[Katherine.Monson@ksat.no](mailto:Katherine.Monson@ksat.no)



# What are the baseline assumptions?

## Constellation Details:

- Over 10,000 LEO satellites are planned to launch to provide broadband internet across the globe

## TT&C Requirements:

- Ka-Band uplink and downlink
- LEO requires tracking antennas
- Cloud-based implementation

## Presentation Goals:

- Introduce and describe the KSAT “TT&C as a Service” architecture

# What is the “TT&C as a Service” model?

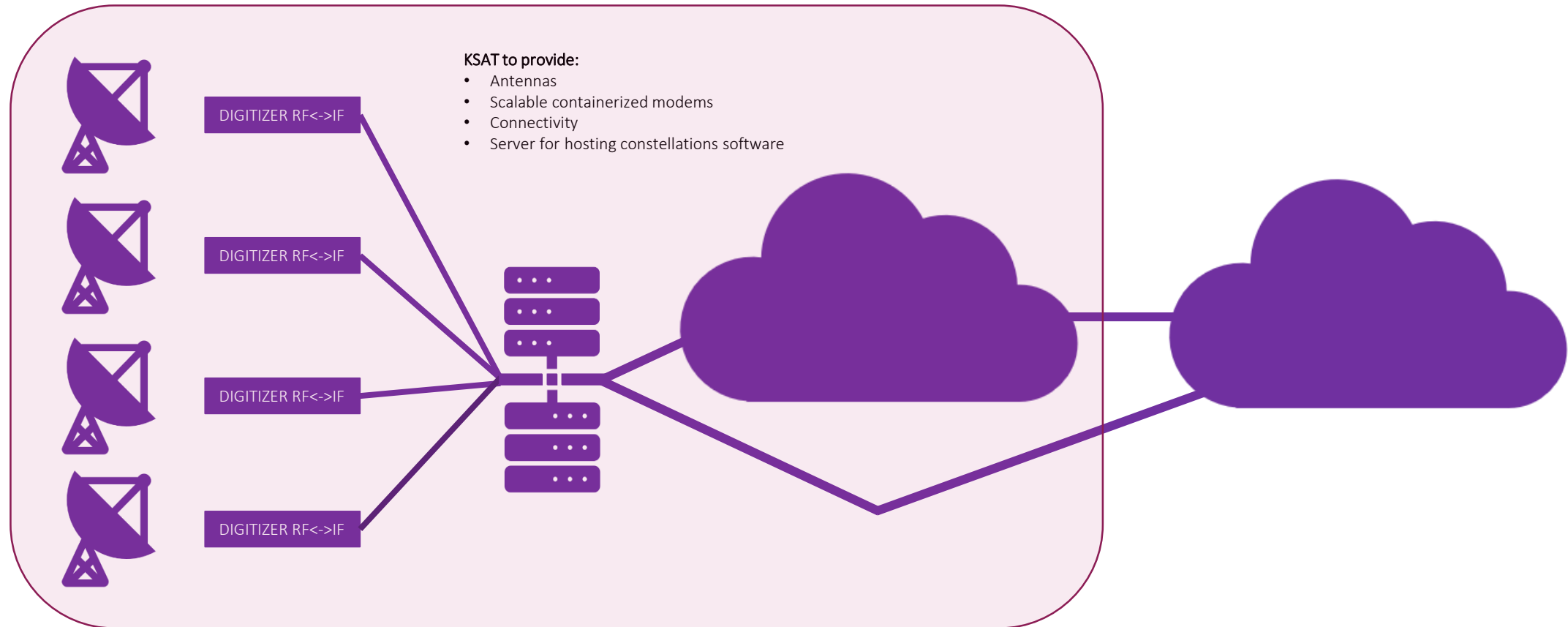
## KSAT operating under a TT&C as a Service Model

- KSAT owns and operates antennas satisfying LEO constellation requirements
- KSAT owns site infrastructure providing dedicated usage of antennas and radios to constellation
- KSAT provides local cloud to host constellation software
- Proven experience supporting customers under this service model

## What are the benefits for LEO constellations?

- High level of service through committed SLA including dedicated availability and expert proficiency
- Reliability - 24/7 network operations center with expert engineering resources monitoring and servicing customers globally
- Minimize CAPEX and labor costs by utilizing KSAT owned infrastructure
- KSAT provides the option to host Constellation software on IaaS platform
- Standardized Architecture enables scalability
- Launch and Early Orbit Phase (LEOP) support to resolve critical spacecraft anomalies
- Access to a team of experts who specialize in site surveys for new buildouts

# What is KSAT responsible for?



# Where are we headed?

## Infrastructure and TT&C As a Service

- Managed Services Platform & Cloud Solution
- Highly scalable and modern approach that allows us to tailor solutions to unique requirements
- Redefines the foundation for modems, schedulers, databases, and payload processing
- Redundant design enables high availability

## Ground Station Architecture

- Software Defined Architecture with Digital-IF (RF-over-IP) backbone
- Standardized solution allows for rapid deployment of new sites and onboarding of additional capabilities
- Provides flexibility with data distribution by implementing a Software/Micro-Services approach
- Availability to host custom applications for scheduling or metrics processing



For more information please contact:

**Katherine Monson**  
CEO, KSAT Inc.  
Katherine.Monson @ksat.no

KSAT Inc  
590 Burbank Street, Suite 255  
Broomfield, CO 80020

