# Kratos Consulting Services



**KRATOS**®

Kratos' solution for Earth Observation (EO) and remote sensing missions includes quantumRX and quantumDRA – two Virtual Network Functions (VNFs) that perform signal processing in a cloud environment.

## Overview of Solution

quantumRX is a wideband software receiver and demodulator offering up to 600 Mbps of throughput to support Earth Observation and Remote Sensing satellite missions across several hundred MHz of instantaneous bandwidth, an unmatched level of digital signal processing in software.

quantumDRA records satellite-based sensor telemetry data during a spacecraft pass, providing highly configurable options for CCSDS VCDU filtering and recording. The recording application supports real-time streaming of downlink data and routing to other processing chains in real time.



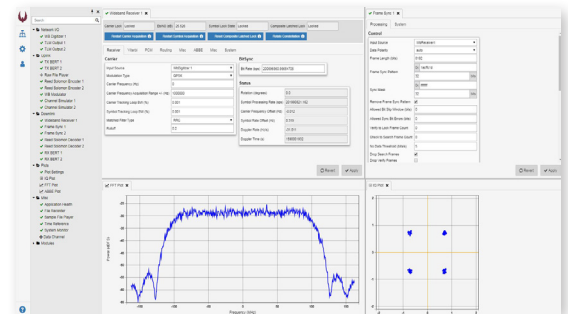*quantumRX processes EO and remote sensing signals*

## Consulting Services

To ensure a successful experience with our OpenSpace solution Kratos has developed a range of consulting services from implementation, configuration to training to help customers with their satellite EO and remote sensing missions. Kratos has built its business on supporting customers for the life of their mission and business.



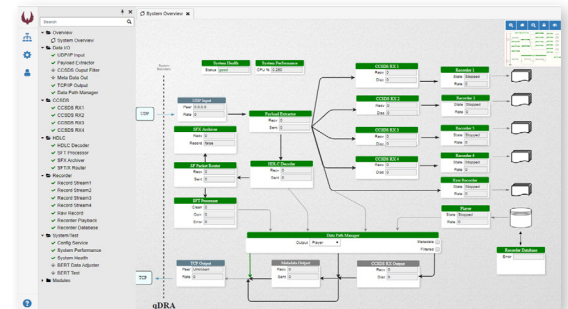*quantumDRA records satellite-based sensor telemetry data*

## Implementation Service

This one week implementation support service provides remote assistance for customers planning or deploying the OpenSpace cloud solution. The service provides the customer with:

- system familiarization
- consulting on configuration and operational implementation of the solution
- on-boarding of the OpenSpace VNF applications (quantumRX and quantumDRA) into the customer's environment
- coordination and testing with the ground-station service and mission testing with actual satellite passes

Specific elements within the implementation service include:

- review and assessment of customer furnished space to ground ICD
- configuration file review, optimization and verification based on customer furnished ICD
- consulting services for operational readiness based on implemented configurations
- assistance in deployment of the quantumRX and quantumDRA application into the customer environment
- assistance in configuration of satellite pass data and contact scheduling
- verification of OpenSpace software application chain connectivity to the ground-station service
- testing of on-orbit satellite passes, telemetry downlink and mission data collection

Kratos personnel offer support in key areas related to satellite protocols, waveforms and or unique use cases throughout the implementation timeframe. NOTE: Some waveforms/protocols may require specialized engineering services.

Kratos also offers services for turnkey development of the EO/Sensing configuration for the OpenSpace application chain based on a customer-furnished ICD.

## Configuration Service

This service offers customers a solution for OpenSpace VNF configuration development based on a customer-furnished ICD in support of their Earth Observation/ Sensing missions.

This service provides a Kratos-developed configuration set for the OpenSpace VNF components (quantumRX and quantumDRA) which is customized based on the customer-furnished ICD and mission requirement. The generated files are provided to the customer for deployment in the OpenSpace solution.

Specific training on the OpenSpace solution and the individual VNF applications, including API integration and automation, is available under a separate service offering within the Marketplace.

## Training Service

This two day course provides remote training for customers planning to deploy the OpenSpace solution. The training provides the customer with:

- an OpenSpace solution overview
- sessions on the OpenSpace VNF applications (quantumRX and quantumDRA)
- UI/UX and interface familiarization
- high-level configuration approach and details regarding deployment
- Q&A wrap-up session will provide a solid understanding and foundation for mission success and include key areas related to the OpenSpace solution including:
    - satellite protocols
    - waveforms
    - use-case discussions

## Microsoft Marketplace

For more information about Kratos' consulting services please visit the Microsoft Azure Marketplace. There are offerings for each service including – implementation, configuration and training.