

# DIGITAL PAYLOAD RESOURCE **MANAGEMENT SYSTEM**

# **PAYLOAD RESOURCE OPTIMIZATION SYSTEM (PROS)** -

**INTERFERENCE DETECTION &** 

- Management of onboard **Digital Channelizer** Processor (DCP)
- Optimized beamforming,
- ✓ Generate optimized resource management plans and schedules
- ✓ Manage payload configurations for multiple satellites

#### PAYLOAD RESOURCE PLANNING

SATELLITE COMMANDING

SATELLITE FLEET MANAGEMENT

beam hopping, channelization	

BEAM LAYDOWN

OPTIMIZATION

TELEMETRY

MITIGATION

ANALYSIS

- - **RESOURCE CAPACITY OPTIMIZATION**

GROUND SEGMENT ORCHESTRATION

WHAT-IF SCENARIO ANALYSIS



- ✓ All the essentials for managing your digital payload
- ✓ Manages and deploys plans, including beamforming, channel/ carrier plans
- ✓ Integrates with the payload controller to deploy operational plans to the satellite
- ✓ Receives telemetry from the satellite and displays information for long-term analysis
- ✓ Evaluates link budgets and sizes links to deliver capacity to meet mission goals

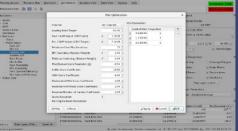


- ✓ Includes sophisticated optimization and data analysis capabilities
- ✓ Optimize plans to deliver time-varying capacity & form beams with intelligent nulling
- ✓ More sophisticated modelling of the satellite payload, including advanced spatial intermodulation analysis
- ✓ Integrates with ground segment to provision carrier plans and ensure that the satellite capacity is properly configured
- ✓ Coordinates services across multiple satellites through fleet management
- ✓ Uses uplink spectrum monitoring features to detect and null jammers and interferers

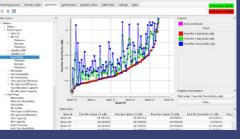
## **CENTRAL CONTROL DISPLAY**



### DEVELOP & OPTIMIZE CAPACITY PLANS



### **RICH GRAPHICAL OVERLAYS**





7315 Wisconsin Ave. Suite 1000E Bethesda, MD 20814 USA www.kythera.space

info@kythera.space +1 301-298-7590