SmartPayload

Smartpcs Smartrms Smartrings Smartleonms

OUR CUSTOMERS ENDORSE US



CHECK ALSO

Information website: https://www.gmv.com/en-es/sectors/space#payload-management-systems-542

CONTACT

Always ready for the new space

from Traditional to Advanced flexible telecom payloads from Geostationary to LEO Constellation Satellites

SmartPayload

A product by:





Product Info at:

https://www.gmv.com/en-es/sectors/space#payloadmanagement-systems-542

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SmartPayload

A unique multipurpose suite tool for

Management and control of satcom payloads and capacity optimization





SmartPayload

IS YOUR SATCOM OPERATIONAL SOLUTION

- END-TO-END SOLUTION integrated with ground segment equipment.
 UP-TO-DATE WITH MARKET TRENDS prepared for your future challenges.
- OFF-THE-SHELF SUPPORT for your specific mission's requirements.
- **STANDING OUT** as replacement/integration of existing old tools.

MEANS FLEXIBILITY IN A SINGLE TOOL

- HOMOGENEOUS OPERATIONS for payloads from any manufacturer.
- STATE-OF-THE-ART EVOLUTION to support your upcoming missions.
 UNLIMITED CUSTOMIZATION to ensure the deployment fits your needs.
- FLEXIBLE LICENSE POLICY to make the best out of your investment.
- FROM MANUAL TO UNATTENDED OPERATIONS dealing with the new space.
- **COMMODITY HARDWARE** for physical/virtual/container deployments.
- CONTINUOUS UPGRADE aligned with latest versions of SW COTS.
- SCALABILITY from a single satellite to your complete satellite fleets.
- DDBB DRIVEN SW to configure your mission or we can do it for you.
- OPERATIONAL INTEGRATED SW integrating third-party standalone tools.

MEANS INTEROPERABILITY

- EMBEDDING AND/OR INTERFACING with your payload tools and systems.
- FULLY CUSTOMIZABLE REPORTS to get the most out of your results.
- OPEN FORMATS for future data exploitation by external systems.
- EVOLVE YOUR PRODUCT BY YOURSELF do you need help? Talk to us!



Smartpcs PAYLOAD OPERATION DESIGN, PLANNING, MONITORING AND CONTROL

Smartpcs controls on-board routing , channels settings, and antenna pointing and beam reconfiguration. It provides payload configuration checks, operation constraints and regulatory and compatibility mission analysis. Supporting VHTS and digital reconfigurable payloads.

- PLANNING AND TRACKING payload operations.
- CHECK AND CONSTRAINT ANALYSIS of missions, regulations, or contracts.
- MONITORING AND ALARM GENERATION during payload configuration.
- SINGLE TOOL to control the performance of all your fleet payloads.
- INTERFACES with SCCs and high level engineering tools.
- **ROBUSTNESS** based on microservices and the latest technologies



Smartrms SATCOM CAPACITY MANAGEMENT AND RESOURCE

OPTIMIZATION

Smartrms is the solution for SATCOM satellite capacity management, mission planning and resource accounting, obtaining the best ground/ space segment candidates for the service.

- ANALYSIS AND OPTIMIZATION of traffic management for multiple satellite users including contracts and priorities.
- LINK BUDGET COMPUTATION AND OPTIMIZATION.
- ACCURACY of models and elements including ITU recommendations.
- CONFIGURABLE ANALYSIS AND REPORTING including maps visualization.

Services optimization \rightarrow Find the best way to provide the service





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Smartrings

OPTIMAL SOLUTION FOR PAYLOAD MANAGEMENT AND RECONFIGURATION

Smartrings automatically solves the channel path within payloads' redundancy rings and the interconnections based on switches/power dividers and combiners, in the uplink and downlink.

- **RELIABILITY** endorsed by manufacturers, operators and topologies.
- ENSURE SIGNAL QUALITY minimizing DL time for payload configurations.
- AVOID UNDESIRED DISTURBANCES of active and/or priority channel/ beam.
- PAYLOAD RECONFIGURATION STEPS detailed and safely provided.
- ALL POSSIBLE CONFIGURATION first and second redundant and more
- INTEROPERABILITY open data formats, exposed interfaces through APIs.



Smartleonms TRAFFIC ROUTING AND RESOURCE PLANNING

FOR CONSTELLATIONS

Smartleonms, *Smartleosim* and *Smartpms*: The ultimate solution for satellite constellation mission control, monitoring, and simulation. Real-time traffic and weather processing enable accurate forecasting for optimized operations.

- AI-POWERED REINFORCEMENT LEARNING Adapts dynamically to changing network and service environments
- ADVANCE SERVICES MANAGEMENT Prioritization, mobility, and SLA administration for maximum efficiency
- ORBIT COMPUTATION AND VISIBILITY EVENTS TLE analysis, sun collinearity, and seamless integration with any FDS
- OPTIMIZED RESOURCE PLANNING Beam, frequency, and service allocation for strategic management.
- WHAT-IF ANALYSIS simulates failures, traffic surges, and adverse weather conditions.



