

# Satellite Payload Validation, Verification & Test Satellite Network Operator

## About e2E

e2E provides communications systems engineering, technical support and expertise to clients in the satellite communications industry, in both defence-related and commercial domains. Our services are provided across the full system lifecycle.

## The Challenge

Our Client, a global satellite network operator, had to deliver a secure satellite communications service operation for a Government Customer through a software reconfigurable satellite payload and the relevant Ground Segment infrastructure. Given the departure from our Client normal business of operating the spacecraft payload, offering to its Government Customer a more dynamic, flexible and comprehensive payload operation 'as a service' was a true challenge. Further complexities arose considering that the satellite platform also incorporated a commercial satcom payload and thus the end-to-end validation approach needed to accommodate the schedule and resource constraints from both government and commercial delivery programmes.

## The Solution

In a very short time frame, e2E delivered a comprehensive integration, validation, verification, and test programme including test plans and procedures for the Satellite Payload Operation. e2E's test programme systematically builds up the Satcom

Ground Segment through sub-system acceptance, ground segment system integration, and in-orbit tests.

Prior to handover of the payload operation to the customer, Operational Service Acceptance Tests are executed which validate in a very cost-effective way the operation of the satellite payload on-station through execution of ad-hoc operational procedures. Practical detailed high-quality test and validation documents were delivered which include tests to ensure the satellite payload operates within space specific regulations and policy, on both commercial and government programmes and operational scenarios.

## Customer Benefits

Ever since its delivery, e2E's integration test and validation strategy has been used by our Client for many other similar programmes drastically reducing internal operational costs and significantly contributing to the development of new service delivery platforms for its government and commercial customers.