

# PACIS-6 Precursor Demonstrator for EU's GovSatCom 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, was tasked to develop on behalf of the European Space Agency (ESA) a precursor demonstrator for the EU's GovSatCom programme, which aims to pool and share governmental and commercial satellite services to provide secure and guaranteed access to satcom for a wide range of governmental, institutional and commercial applications requiring security and reliability, through a common service oriented catalogue.

## The Solution

e2E supported this programme by supplying specialised system engineering and design consultants to lead the definition and development of specific aspects of the PACIS-6 demonstrator, including (but not limited to):

- ✓ the CONOPS system, analysing services provided by the PACIS-6 system and determining how they must be supported by the core network
- ✓ the overall MPLS (Multi-Protocol Label Switching) architecture

- ✓ the system design of the core Network Gateway and Network Access Device nodes that enable the PACIS-6 sites and terminals to access the core network
- ✓ the IP Addressing Plan to be used in the PACIS-6 demonstrator
- ✓ the network management architecture and identification of appropriate toolsets that can be used in its implementation
- ✓ the end-to-end PACIS-6 core network test plan

While addressing this work, e2E conducted appropriate design studies to assess alternative technologies and perform cost-benefit trade-off analyses.

## Customer Benefits

e2E successfully delivered the design elements of the PACIS-6 precursor demonstrator, ensuring they were fully consistent and compliant with the GovSatCom high-level system definition. Our work has been systematically used by our Client to cut internal development costs and foster further evolution of the programme with ESA and the EU.