

ESA IRIS Concept of Operations Development 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

The European Space Agency (ESA) has fostered the development of an innovative Programme (IRIS) aimed at making aviation safer, greener and more efficient through a new satellite-based air-ground communication system for Air Traffic Management (ATM). In support of this programme, our Client, a leading global network satellite operator, needed to adapt and enhance its existing Commercial Operating Model for the provision of improved aviation safety communication services to address the future European wide harmonised Continental and Oceanic ATM Standards.

The Solution

For our Client, we have developed a detailed Concept of Operations (CONOPS) document, addressing different Operating Models, Operational Scenarios and Processes. Both Operational Research and Operational Analysis techniques were used to capture organisational, system and process requirements for the management of the IRIS safety services and assess the effectiveness of the operational infrastructure to handle these services.

The Enhanced Telecom Operations Map (eTOM) Service Management framework was used to identify the key Operational Scenarios for Assurance, Fulfilment (provisioning) and Billing. Changes were identified between the existing operational processes for core communication service operation and the IRIS specific service operation.

Customer Benefits

As a result of the changes adopted in the operational model, our approach for the definition of new CONOPS delivered a much enhanced Operating Process Model and contributed to define in detail Key Performance Indicators (KPIs), e.g. quality of service, response times, to measure actual efficiency, previously unexpressed. e2E's model ensured the operation of reliable future-proofed commercial aviation safety services with minimal impact on the existing Commercial Service operation. The new set of KPIs identified by e2E are currently used for measuring the end-to-end efficiency increase on deploying the enhanced operational model processes.