

TOTAL SOLUTION DATA CENTRE DESIGN & BUILD

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# MODULAR DATA CENTRE FOR GLOBAL TELECOMS OPERATOR ON REMOTE ATLANTIC ISLAND

CASE STUDY

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From mountain-top terrain to ocean-crossing freight and on-island commissioning, the project showcases SITE's capability for specialist, mission-critical builds in the harshest locations.



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Secure I.T. has completed a highly complex modular containerised data centre for a global telecommunications provider on a remote South Atlantic island. The facility supports mission-critical ground operations connecting customers to next-generation satellite and subsea backbone services.



Located 1,800km west of mainland Africa, the remote island offers the best operating profile for satellite connectivity, but presented formidable barriers including rugged volcanic terrain with no pre-existing access road, minimal local infrastructure, limited sea freight windows, and a single weekly flight subject to weather. The brief demanded a resilient, high-capacity facility capable of continuous operation in a corrosive coastal climate - delivered with meticulous risk management and zero compromise on safety or performance.

**OVERCOMING CHALLENGING LOGISTICS**

One of the defining aspects of this project was the logistical coordination required not just across continents but in partnership with the local community. The island's small population meant that everyone from hotel owners to logistics workers became part of the project in some way. The project created local employment opportunities and fostered a sense of community pride in supporting a high-tech project.

Given the island's limited flight availability (one flight per week, weather permitting), all deliveries, personnel scheduling, and construction phases had to be meticulously timed. The team also had to navigate unpredictable weather, which could delay flights and shipping schedules.

A spokesperson for the client outlined:

*"This was such a crucial project for us, we did a huge amount of work ensuring we picked an experienced data centre builder, that could cope with the challenges. SITE supported us throughout the design phase, adapted to meet our needs, and created a very detailed plan for delivery and installation, focused on minimising risks. We are very pleased with the outcome."*

**SITE'S BESPOKE SOLUTION**

Initial design discussions to final commissioning took 12 months and was completed on time. SITE designed, manufactured, pre-built and factory-tested a multi-container modular facility - comprising a main data room, a separate UPS/switch room and lobby space - engineered specifically for the island's conditions, including specially adapted air conditioning condensers, protective coatings and materials to withstand high salinity levels

and ocean spray. The architecture integrates high-density IT racks with cold-aisle containment, N+1 energy-efficient cooling, modular N+1 UPS, custom switchgear, fire detection and suppression, security systems (CCTV, access control, intruder alarms), fibre raceways and full electrical infrastructure. All modules underwent integrated systems testing (IST) in the UK to assure seamless on-site assembly and performance alignment once deployed.

Chris Wellfair, Projects Director at Secure I.T. Environments, commented:

*"This was an extraordinary project in every sense - remote location, complex logistics, and high client expectations. Our modular approach and close collaboration with clients ensured a smooth delivery despite the odds. It's a project we're incredibly proud of."*



