



Senior Command & Data Handling Engineer (on-board data architecture and FDIR)

Axient Systems, Delft

At Axient Systems, we are shaping the future of sovereign space capability. Based in Delft, at the heart of the Dutch aerospace ecosystem, we develop advanced satellite systems that support critical commercial and government missions. Our solutions enable secure communications, defence, security, and resilient infrastructure where performance and reliability are essential.

As a growing and ambitious organisation, we offer professionals the opportunity to contribute directly to innovative space projects that make a real impact on society, security, and technological progress.

We are looking for the engineer who owns how a satellite handles its own data: the on-board architecture from payload to downlink, and the failure management that keeps it alive.

The project

You will own the command and data handling architecture of a high-performance optical satellite, including the payload interface unit that moves and processes the imaging data, and the vehicle-level failure detection, isolation and recovery.

What you will own

- The on-board data architecture: how commands, telemetry, housekeeping and payload data flow between the bus, the payload interface unit, the mass memory and the radios.
- The data budgets: generation, storage, throughput and latency, from image acquisition to product delivery on the ground.
- The command and telemetry design: the packet structure, the on-board databases, and the modes and states the vehicle operates in.
- The vehicle-level FDIR concept: which failures are detected where, what the recovery hierarchy is, and what the safe modes do; frozen at PDR because software and gateway implement it.
- The technical oversight of the payload interface unit development, hardware and software, including the interfaces to payloads, radios and the supplied bus avionics.
- The interfaces to the ground segment: what the ground expects to receive and command, agreed with our ground software architect.
- The data handling case at the design reviews, and the answers when operations ask what happens if.

You work with an avionics supplier rather than building boards yourself, and with our flight software team, who implement what you specify.



You have the following demonstrable competencies

- You think in data flows, timing and failure cases, and you can hold all three at once.
- You can specify to a supplier precisely enough that what comes back is what you meant.
- You know the difference between a failure that needs autonomy and one that can wait for the next pass.
- You are comfortable at the boundary of hardware, software and operations, and you do not push problems across it.
- You explain on-board behaviour to operators and to management without losing the essential detail.

Essential qualifications

- Eligible for a Dutch VGB-B clearance.
- Engineering degree in electrical engineering, computer engineering, aerospace or comparable.
- 5+ years in spacecraft command and data handling or on-board data systems, with demonstrable ownership of an architecture rather than a component.
- Working knowledge of space data standards (CCSDS, PUS, CFDP) and on-board interfaces (SpaceWire, CAN, LVDS, Ethernet, UART and serial links).
- Fluent English.
- Comfortable in a multidisciplinary, transatlantic team.

Desirable qualifications

- Earth observation payload data handling: high-rate imaging data, compression, and storage management.
- FDIR design and its verification.
- Experience with FPGA-based data handling and the trade between processor and gateway.
- Experience specifying and accepting avionics from a supplier.
- Encryption and key handling on board.
- Fluent Dutch.

What we offer

- Ownership of the nervous system of a satellite, in a team where you specify, decide and see it fly.
- Competitive, market-aligned salary and benefits, real ownership of your discipline, and room to grow as the organisation scales.
- On-site work in Delft, limited hybrid working possible.

Particularities

This role requires Dutch security screening. You will need a VOG (Certificate of Conduct) to start, which is quick to obtain and lets you begin work on the project immediately.

You might also need a VGB-B clearance. This takes longer, and we support you through it. It is required for some aspects of the role, so you must be eligible for it and willing to undergo the screening, but you do not need to have it in hand to join us.

**Interested?**

Apply via the vacancy on LinkedIn or the registration form on our website.

In your application, include a short description of one on-board architecture or FDIR concept you owned: the constraints, the choice you made, and what an anomaly later taught you about it. Applications without this description will not be reviewed.