



## CASE STUDY

# ISO 27001 Implementation for Adaptive



## OVERVIEW

**Adaptive**, a leader in custom trading technology solutions for capital markets firms, has long maintained robust processes for designing, building, and operating financial trading systems. Recognising the ever-evolving landscape of information security, Adaptive partnered with KA2 Limited to undertake a comprehensive ISO 27001 implementation, further strengthening its information security management posture.

Adaptive provides bespoke front-office trading solutions that combine deep capital markets expertise with cutting-edge technology. Given the critical importance of data security in financial trading, Adaptive engaged KA2 Limited as their trusted advisor and implementation partner to formalise and enhance security processes, ensuring comprehensive protection of sensitive financial data and alignment with industry standards.

## THE REQUIREMENTS

Adaptive had several key priorities on its journey to ISO 27001 certification:

- **Timely Delivery:** The company wanted to achieve certification within a limited timescale.
- **Complex Security Landscape:** The company operates within a complex security landscape involving high-throughput, low-latency trading systems and cloud infrastructure, requiring ongoing vigilance and adaptation.
- **Risk Management:** Identifying and mitigating information security risks was crucial to protect sensitive customer data.
- **Employee Engagement:** Ensuring company-wide engagement of enhanced security practices and policies.
- **Continuous Improvement:** Maintaining and improving the ISMS post-certification.



"KA2 provided expert advice and valuable support throughout our ISO 27001 journey, working collaboratively with our team to further strengthen our existing processes.

Their knowledgeable approach and clear guidance contributed to a positive working relationship and enabled us to achieve our accreditation goals with confidence and within the timeframe set out."



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### THE SOLUTION

Using a structured approach to deliver the ISO 27001 implementation, KA2 Limited ensured that Adaptive's business outcomes were fully understood, documented, and agreed upon by key stakeholders.

#### 1. Initial Assessment

- Conducted a gap analysis to map Adaptive's existing security practices against ISO 27001 requirements, identifying opportunities for formalisation and enhancement.

#### 2. Project Planning

- Established a project team including IT, compliance, and management representatives.
- Developed a detailed project plan with timelines and milestones.

#### 3. Risk Assessment

- **Risk Identification:** Mapped out potential threats to information security, including cyber-attacks, data breaches, insider threats, and physical security risks.
- **Risk Analysis:** Analysed the identified risks to determine their impact and likelihood. Used qualitative and quantitative methods to assess the severity of each risk.
- **Risk Evaluation:** Prioritised risks based on their impact and likelihood, utilising a risk matrix to visualise and categorise risks.
- **Risk Treatment:** Developed strategies to mitigate identified risks, further enhancing controls such as encryption, access controls, and regular security audits.
- **Risk Monitoring:** Established a continuous monitoring process to track and review risks. Used tools such as Security Information and Event Management (SIEM) systems to detect and respond to security incidents in real-time.
- **Documentation:** Maintained detailed records of the risk assessment process, including risk registers, treatment plans, and monitoring reports.

#### 4. Policy Development and Peer Review

- Supported the review and update of information security policies, including data protection, access control, and incident management.
- Conducted peer reviews of policy documentation to ensure accuracy, completeness, and alignment with ISO 27001 standards.

#### 5. Implementation of Controls

- Reviewed and further enhanced existing technical controls, including encryption, firewalls, and intrusion detection systems, to ensure alignment with ISO 27001 standards.
- Utilised specific technologies including:
  - **Hydra:** A developer platform powered by Aeron, accelerating and de-risking the build of custom trading systems.
  - **Aeron:** A high-throughput, low-latency messaging and high-availability clustering technology for electronic trading.
  - **Cloud Solutions:** Leveraging cloud infrastructure for scalable and secure trading environments.



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### 6. Threat Modeling and Secure Development

- **Threat Modeling:** Advised on conducting regular threat modelling sessions to identify and address potential security threats during the design phase. Using methodologies such as STRIDE (Spoofing, Tampering, Repudiation, Information Disclosure, Denial of Service, Elevation of Privilege) to systematically analyse threats.
- **Secure Development Lifecycle (SDLC):** Refined security practices relating to the development lifecycle, including secure coding standards, code reviews, and automated security testing.
- **Tools and Technologies:** Advised on tools such as static and dynamic code analysis, vulnerability scanners, and penetration testing to ensure the security of the software.

### 7. Training and Awareness

- Enhanced existing training programmes to further strengthen employee understanding of information security policies, secure coding practices, and threat modelling.
- Built on a strong culture of security awareness by expanding regular workshops, seminars, and e-learning modules.
- Advised on further specialised training for developers, such as secure development practices and the use of security tools.

### 8. In-Depth Internal Audit

- Carried out in-depth internal audits to ensure compliance with ISO 27001 requirements.
- Prepared for the stage two certification audit by conducting thorough reviews and ensuring all documentation and processes were in place.

### 9. Certification

- Engaged an accredited certification body to perform the external audit.
- Successfully achieved ISO 27001 certification.

To find out more about Adaptive, click [here](#).

## THE BENEFITS



#### **Robust Security:**

Further enhanced the protection of sensitive financial data.



#### **Regulatory Compliance:**

Achieved full alignment with industry regulations and standards.



#### **Risk Mitigation:**

Further reduced the likelihood and impact of security incidents.



#### **Customer Trust:**

Strengthened relationships with clients and stakeholders.



#### **Operational Efficiency:**

Optimised processes and reduced technical debt, enabling more agile development and quicker adoption of new functionalities.



#### **Employee Empowerment:**

Ensured that the in-house team was fully self-sufficient and not reliant on external resources to operate the ISMS post-certification.

## THE OUTCOME

By leveraging KA2 Limited's expertise and structured approach to ISO 27001 implementation, Adaptive met all key business outcomes. The certification not only ensures compliance with the highest international standards but also fosters a culture of continuous improvement and vigilance against emerging threats.