

Software

Software

**Critical
National
Infrastructure**

BACKGROUND, SKILLS & EXPERIENCE





Softwire at-a-glance

- A stable, consistently profitable business
- Privately owned, with founders actively involved
- Risk-averse, with no debts or liabilities
- Average 15-20% annual growth since inception
- ~95% annual staff retention



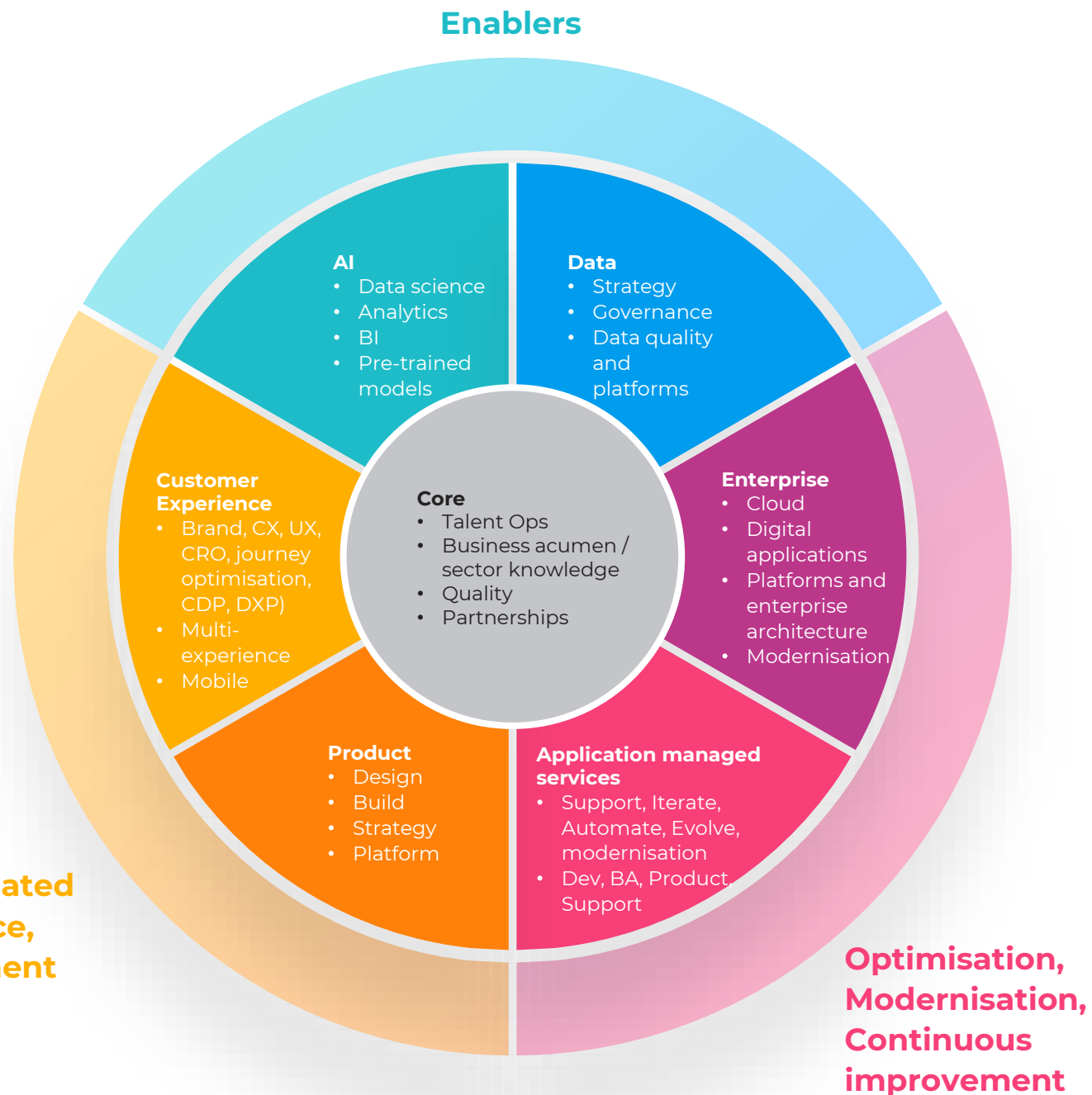
Awards and Recognition

- Sunday Times “Best Companies to Work For” 11 years running
- Financial Times “Leading UK Management Consultants 2021: IT Implementation”
- 4.7 rating on Clutch.co
- 4.8 rating on Glassdoor
- Microsoft Gold Partner
- ISO27001 and Cyber Essentials Certified

We offer a wide range of services

Our multi-skilled cross-functional teams offer **full-lifecycle management and ownership of outcomes** across a range of domains, using a range of specialisms.

**Brand,
Differentiated
experience,
Engagement
revenue**



A long history of delivering in the public sector

We have delivered outcomes for a range of departments and related bodies

Central Government



Department
for Education



Department for Levelling Up,
Housing & Communities



Cabinet Office



Ministry
of Justice



Government Digital Service



Department for
International Trade



Department for
Energy Security
& Net Zero

Healthcare



Office for Health
Improvement
& Disparities



Department
of Health &
Social Care

Moorfields
Eye Hospital 
NHS Foundation Trust


Improvement



The
Fleming
Fund

Arms Length Bodies



Office for Product
Safety & Standards

LNER
LONDON NORTH EASTERN RAILWAY



Camden

Southwark
Council

Local Authorities

Critical National Infrastructure

Our team have extensive experience migrating Critical National Infrastructure services into the cloud, and providing ongoing support and operational services for them.

Our team will work with you to determine your requirements, and design an approach and architecture that will make best use of cloud technology. This includes designing ongoing support operational models based on NCSC best practice.

We can also support in upskilling your team in cloud best practice, including infrastructure-as-code and DevSecOps, as well as supporting skills such as Agile coaching.

Service Features

- **Assessment and planning:** Reviewing existing infrastructure, mapping to business goals, analysing total cost of ownership and return on investment
- **Security and compliance:** Defining security models, IAM strategy, audits and industry standards
- **Architecture Design:** Defining service models, architecture best practices
- **Migration strategy:** including post-migration validation
- **Training and transferring knowledge:** platform and tools training, documentation, knowledge transfer sessions
- **Optimising and managing costs:** Defining performance metrics, implementing auto scaling and cost controls
- **Managing operations:** monitoring, logging and reporting, Infrastructure as Code, DevOps and continuous integration
- **Ongoing support:** Providing 3rd line technical support for cloud CNI services



Case Study: Register to Vote Service

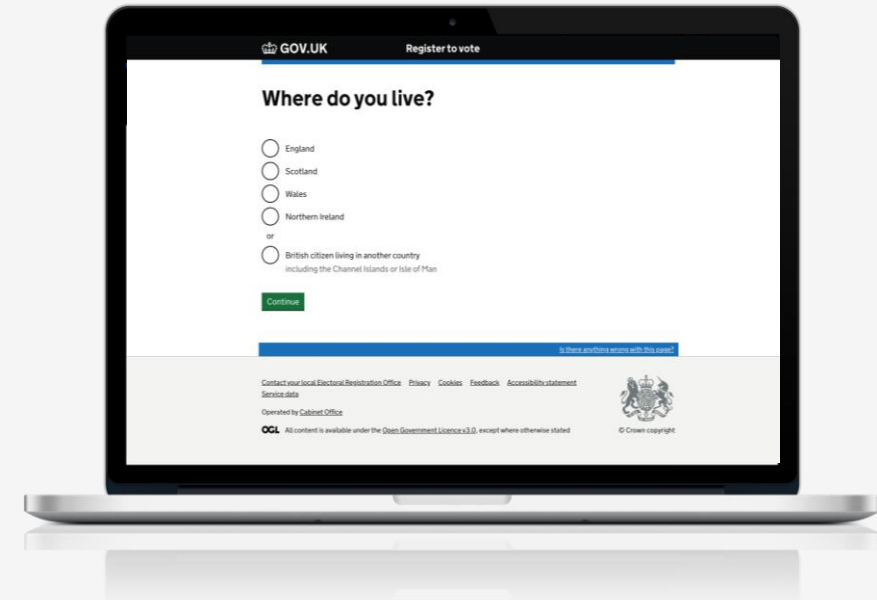
We delivered a cloud migration/replatforming of the Critical National Infrastructure Register To Vote service, a key part of the UK's electoral ecosystem

Key Design Challenges:

- Extremely spikey load pattern around elections
- Stringent non-functional requirements (99.9% uptime etc...)
- Data migration to support a close to zero downtime transition

Outcomes:

- Live service load tested to 275k concurrent users with <100ms page load times
- New architecture has saved significant hosting costs
- Achieved AAA accessibility



Register to Vote Service

Technical Design

Critical National Infrastructure project with exceptional technical challenges.

Technical design approach included:

Clarity of responsibility

- Experienced tech architect with overall ownership and support from wider org

Early and open collaboration

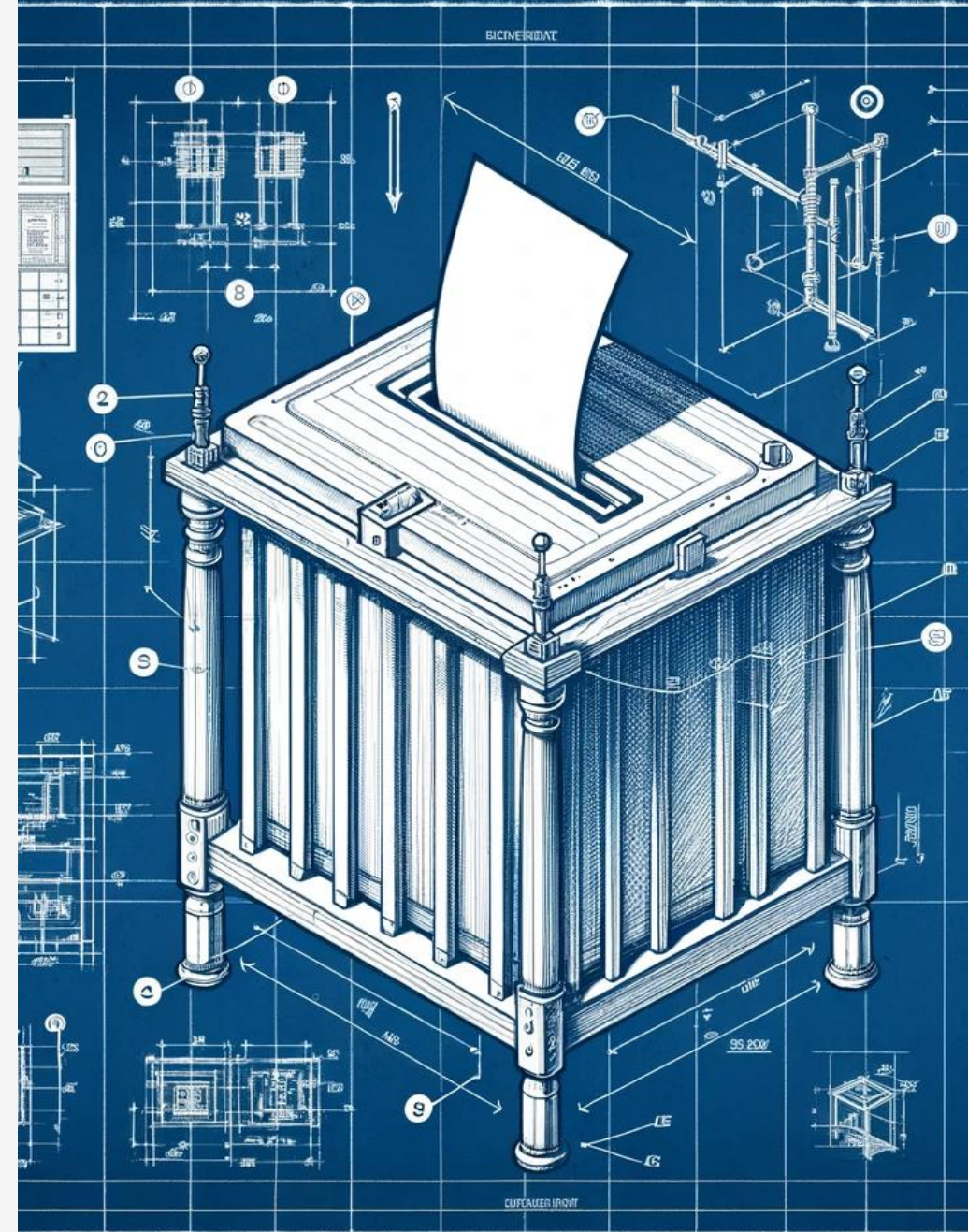
- Working groups with stakeholders/partners
- Living documentation always up-to-date

Validation of decisions

- Spikes + engagement with cloud vendor

Joined-up leadership across disciplines

- Tech/UX/Delivery leads working closely to ensure joined-up delivery plans



Register to Vote Service

Security and Privacy

Service holds citizen personal data, and is a key link in the security of electoral processes.

We brought:

Specialist security expertise

- Softwire security lead working directly with NCSC and GDS Cyber

Layered approach to security

- Technical design *e.g. encrypted client-side storage*
- Infrastructure *e.g. back end service isolation*
- Boundary protection *e.g. WAF*
- Monitoring *e.g. log-shipping to DLUHC Cyber*

Security embedded within team processes

- Low level *e.g. code review, security testing*
- High level *e.g. threat-modelling, data lifecycle management*



Register to Vote Service

Resilience and Performance

Highly visible service with massive, unpredictable traffic spikes and complex dependencies.

Fully-realized cloud benefits

- AWS Lambda serverless technology delivered large cost savings and huge burst capacity

Integrated technology landscape

- Portfolio of electoral services with consistent technical approach ensures stability/efficiency
- Close collaboration with other gov agencies ensures processes are effective end-to-end

Designed for maintainability

- Comprehensive real-time monitoring and alerting ensure day-to-day performance
- Extensible technical design and strong devops toolset allow efficient changes
- Software provide expert 24x7 SC support

