Case Study

Engineering a Self-Serve Broadband Rollout Service

/ Building Digital UK

Building Digital UK (BDUK) is the UK Government agency responsible for improving broadband and mobile connectivity across the country, particularly in rural and hard-to-reach areas. NewRedo supported BDUK on a project to help people understand when broadband was coming to their area, turning complex rollout information into a clearer and more accessible public-facing digital experience.

> " We now have a straightforward way for people to find answers for themselves. The team worked fast, came up with fresh ideas and kept users at the centre. We came away with a prototype ready for GDS and a clear route to growing the service "
>
> James Carpenter - Head of Campaigns and Promotions

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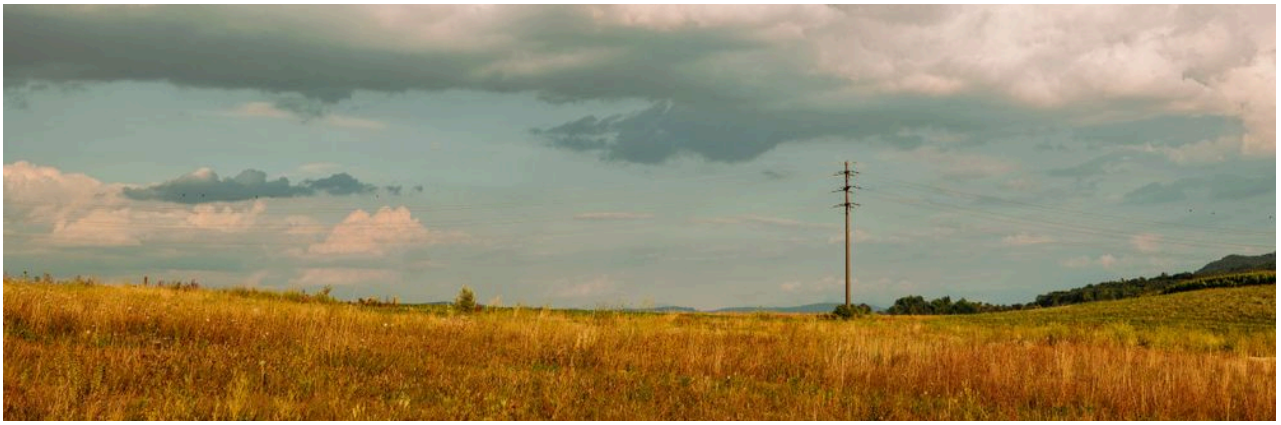
Case Study



Project Introduction

Infrastructure and engineering delivery of a public-facing broadband rollout service for Building Digital UK (DSIT), supporting Project Gigabit. NewRedo provided the prototyping, testing and delivery infrastructure and the full engineering capability, working in a blended team with Thunk (user research and design). The work covered online visualisations of national broadband rollout, address- and area-level lookup journeys, integration of rollout data and Ofcom APIs, rapid prototyping across eight versions and four rounds of user testing, and a GDS-ready Alpha that passed assessment on all 14 Service Standard points with no conditions.

Project Challenge

Project Gigabit is a nationally significant programme, and public interest in when it will reach each community is high. Before this work, there was no reliable self-serve way for people to get that information, so enquiries reached BDUK through manual channels such as letters and emails.

- Building a service to answer that demand brought several connected challenges:
- Rollout plans involve many suppliers, contracts and geographies, so the data was complex and changed often. It had to be turned into answers that were accurate and easy to understand.
- Users ranged from members of the public to MPs and broadband champions, each with different questions and levels of detail.
- As a central government service, it had to meet the GDS Service Standard, accessibility requirements and public expectations of transparency.
- Research was shaping the service as it went, so the engineering and infrastructure had to support fast prototyping and frequent change.
- The service had to rely on external data sources, including Ofcom, so integrations needed to be reliable and resilient.
- The broader challenge was to replace a manual, reactive enquiry process with a dependable digital service. It needed to work for a wide public audience and be robust enough to progress through government assessment towards Beta.

Project Solution

NewRedo provided the infrastructure and engineering within a blended team. Thunk led user research and design, and NewRedo owned the environments and the technical build.

- Clear partnership roles: Thunk ran research with citizens, MPs and broadband champions and led the service and interaction design. NewRedo provided the prototyping, testing and delivery infrastructure, plus all the engineering needed to turn designs into working software.
- Infrastructure for rapid prototyping: We set up prototyping and testing environments that let the team build, deploy and test new versions quickly. This supported eight prototype iterations across four rounds of user testing without slowing the research down.
- One team, one backlog: Researchers, designers and engineers worked from a shared backlog and in shared delivery rhythms, so findings went straight into the next build rather than through sequential hand-offs.
- Visualising national rollout: We engineered online visualisations that show broadband rollout progress across the country in a form the public can understand at a glance.
- Clear local answers: We built lookup journeys that turn complex rollout data into clear, local information about when better broadband is expected.
- Integrating rollout and availability data: We integrated rollout data and external sources, including Ofcom APIs, so the service could give consistent, up-to-date answers.
- Built to government standards: Engineering followed the GDS Service Standard and accessibility requirements, with the documentation and evidence needed for service assessment.
- Ready for Beta: We delivered a GDS-ready Alpha with a technical foundation and a clear roadmap to Beta.

Customer Value Proposition

The work gave BDUK a tested, assessable foundation for moving from a manual enquiry process to a self-serve future. It also showed how a blended team combining specialist research and design with strong engineering can meet the demands of central government delivery.

- The service passed its GDS Alpha assessment on all 14 Service Standard points with no conditions.
- A working, GDS-ready Alpha with a clear roadmap to Beta.
- Clear online visualisations of national broadband rollout and simple local answers for citizens.
- Eight prototype versions tested across four rounds of user research, supported by fast, dependable prototyping and testing infrastructure.
- Reliable integration of rollout data and external sources, including Ofcom APIs.
- A path to reducing the manual enquiry workload on BDUK teams.
- A proven NewRedo and Thunk partnership model, which we have since used again for Connected Places Catapult's CReDo.

NewRedo

Project Skills

Prototyping, Front end development, Geospatial data, API integration, GDS Service Standard, Blended, multi-partner delivery, UX Design, Agile Delivery Management, UX Testing, Accessibility