



asidua business services

# case study

## Repurposing e-Government Services

### background

The Delivery and Innovation Division in the Department of Finance and Personnel provides a range of services to the Northern Ireland Civil Service. These include e-Government policy, strategic programmes, business consultancy and ICT shared services. DFP/DID have undertaken to trial a set of touch screen Kiosks in various parts of Northern Ireland with a view to a province wide rollout in the future. These Kiosks support Digital Inclusion ("Ensuring that everyone in Northern Ireland can benefit from the Internet."). They provide access to government services (both informational and transactional, e.g. booking an MOT), free Wi-Fi access, internet access and advertising. KDS Ltd put together a consortium to support the Kiosk pilot, with Asidua acting as the integration partner.

### client requirements

Asidua were required to provide:

- a re-purposing component that could intercept web pages and transform these into a form suitable for presentation on devices with a different form factor – in this case the Kiosk panel (e.g. offering larger buttons and restructured text)
- integration of the kiosk credit card reader hardware with the existing e-Government web pages
- integration with the kiosk router hardware to ensure local Wi-Fi access was only permitted to those who have accepted the terms and conditions
- a managed service that provided both the hardware and software to support the above requirements

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### solution

The Asidua Business Services division supplied the following:

- A Microsoft Windows server platform with an IIS web server. This platform acted both as a web server and an integration server.
- The re-purposing component was developed as an ASP .NET web application. This was written to allow the output to be easily customised to cope with different kiosk panels, or even alternative clients (such as mobile devices).
- Integration with the credit card reader was achieved through an ActiveX control.
- The web transformer was architected to ensure all content repurposing was transparent to both the kiosk client and all government web servers.

### benefits

- **Flexibility** – It was possible to quickly and easily add new transforms to handle new target sites as and when they were added to the pilot.
- **Compliance** – Brought the credit card entry in line with good practice and standards required of kiosks (as opposed to private internet use).
- **Future-proofing** – The integration server will allow additional commercial services to be supported (the trial is looking at these).

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## the extra dimension

The extra dimension we provide lies in our bespoke methodologies which combine industry and home-grown standards, tools and techniques to guide our engineers via a few well-defined phases where we:

1. assist with identifying a need through **diagnosis**
2. ensure a proposed solution is *fit-for-purpose* through **modelling**
3. rapidly **realise** a solution using *best-of-breed* platforms and methods.

These unique tools are the product of the experience and know-how of our top architects blended with the latest integration technology and industry standard tools. By adding this extra dimension to any solution we can bypass typical pitfalls and ensure the most efficient and effective outcome.

## adding the extra dimension

For this project, the extra dimension was added as follows:

- **Diagnosis** (BPM Analysis)  
Analysis of existing e-Government web hosted services allowed us to quickly understand the core processes to be re-purposed.
- **Modelling** (UML Modelling)  
By employing a UML modelling notation, Asidua provided a transparent view of the core components and interfaces involved.
- **Realisation** (WEST – Project Management)  
This bespoke Asidua tool was offered free and facilitated the management of both Asidua and client distributed development teams.

## technology

**Platforms** employed:

- Microsoft Windows Server
- Microsoft IIS
- Microsoft .NET platform

**Methods** of customisation:

- Microsoft C# development
- XML modelling

## tools

Used for **Diagnosis**:

- Sector-specific process templates
- Business analysis techniques

Used for **Modelling**:

- Use Case analysis
- UML modelling

Used for **Realisation**:

- Agile development techniques
- Parallel development
- Life cycle management
- Rapid generation of enterprise .NET components using Microsoft Visual Studio
- The Asidua WEST tool was used for management of development teams

## asidua

Asidua delivers world-class software consultancy and services to clients across a broad spectrum of business sectors. Our hard-working team of talented and experienced professionals is ready to tackle the integration of a complex array of enterprise systems or the development of embedded software for leading-edge telecom products. Established in 2002, the company now employs over 120 people across offices in Belfast, Birmingham and Dublin. Asidua has achieved recognition as a Deloitte Technology Fast 50 company and an Employer of Choice.



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