

OPEN DESIGN STUDIO –  
OUTREACH

March 2017



## Unshackling Digital Design in the Public Sector

The internet is revolutionising the way organisations communicate with their customers and private sector and public sector alike are striving to transform by replacing paper with modern digital services. However, evidence suggests that many public sector organisations lack the digital design skills to develop digital services. In a recent survey by Deloitte 52 percent of public sector organisations said they were concerned that their personnel lacked the design and coding capabilities to deliver a positive end user experiences during digital transformation projects.

This was further borne out by the fact that 74 percent of those polled said they still chose to blend contractors with their in-house resource to develop digital services.

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### THIS HIGHLIGHTS FOUR KEY CHALLENGES:

1. Skills – Internal digital design teams are (often) ill-equipped to independently code, design and implement complex digitised services. In addition, finding (and keeping) skilled developers can be a challenge and the cost of employing the right people can be high.
  - Security and high performance environments require real world development experience to be successful;
  - Problems occur if key members of digital teams leave and take their knowledge with them.
2. Complex coding – Open Source programming helps avoid digital lock-in but this approach can sometimes cause more problems than it solves as:
  - Projects have to be built from the ground up and can entail hidden ongoing lifecycle costs;
  - There can be substantial investment required in learning and implementing complex code;
3. Changing working practices – In the era of collaborative working, team members are often fully or partially co-located on projects and multiple skilled and non-skilled agents need to be able to coordinate and liaise with each other and technical partners.
4. Channel shift – The increasing volume of services moving from paper to digital and tight timescales on many projects means organisations needs to be able to make the most of their existing investments in development across future projects.

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Toplevel's answer to these challenges has been to create design tools that address these issues by taking a hybrid approach that aims to combine an Open Standards COTS approach with the advantages of Open Source coding.

The result is to enable effective design and configuration, without the need for complex coding knowledge, avoiding digital lock-in and providing a low entry threshold when it comes to coding requirements, while at the same time enabling flexible working, great user outcomes and re-use of code for future projects.

## Open Design Studio – Digital Design for Digital Government

Open Design Studio is our Outreach low-code platform's visual design tool kit that enables multi-skilled development teams to collaborate and boost productivity by providing both developers and non-developers with the flexibility to create, design and update digital interactive services from any device or location.

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### OPEN DESIGN STUDIO – BENEFITS OUT-OF-THE-BOX

- Enables multi-skilled teams to collaborate and boost activity
- Delivery times and costs can be cut by up to 65% vs bespoke software deployments
- Open Design Studio is accessible to both developers and non-programmers
- 'Design once, use many times' capability – Design artefacts, objects and templates once and then re-use these for other pages, projects and devices types (e.g. mobile)
- Open Source – Developers can use their Visual Studio skills (Including C#) to code and develop .NET plug-ins that they can share and reuse for future agile projects
- Zero code – Less complex projects can be developed without the need for coding
- Security – Protection from Outreach's powerful Identity Management module and smart 'security-built-in' capabilities ranging from access control, single sign on and antivirus integration to protection from denial of service (DoS) attacks

Open Design Studio's 'Design once, use many times' capability allows users to design user-friendly case workflows, business processes, document layouts, forms and templates once and re-use these for other pages, projects and devices types without needing to re-write code. Flexibility is provided through drag and drop design and configuration tools that allow staff to quickly tailor with tools that provide consistent layouts out-of-the-box. In addition, Open Design Studio gives developers the freedom of an open design environment through API extensions and .NET.

OPEN DESIGN STUDIO PROVIDES SIMPLE WIZARD-DRIVEN DESIGN TOOLS FOR A RANGE OF APPLICATIONS FROM BASIC FORMS TO GRANTS, APPOINTMENTS, CASE MANAGEMENT, AUDITING AND BOOKINGS



## Great for Agile Digital Delivery – Iterative based on User Needs

**Open Design Studio is an ideal tool for agile projects that require a strong focus on user needs through the software's ability to rapidly create digital services:**

- **Reduced programming** – Delivery teams (Business analysts, User Experience Designers or Developers) can quickly and simply re-work or re-use interfaces through inbuilt graphical tools without the need to write code
- **Fast iterative prototyping** – Designers and business analysts can create working prototypes in just a few days, enabling the delivery team to easily test user needs, learn, change and retest iteratively
- **Cost-effective transition from Alpha to Beta** – Once the project moves into Beta the working prototypes built during the Alpha phase can be taken forward and become the foundation for the Beta, because it can already handle real transactions
- **Accelerate Beta Delivery** – Designers and Business Analysts can continue to test user needs and iterate during the Beta. Developers are freed up to concentrate on the technical side of the delivery
- **Built in functions** – Rapid delivery, the Outreach platform natively supports accessibility compliance and support for mobile devices and offline work. It keeps pace with new browsers plus backing for legacy browsers (e.g. IE6), saving the delivery team lots of time, and enabling them to focus on delivering functionality
- **Powerful Case Data modelling** – If you are using Outreach for case management as well as digital services then you'll be delighted to know that Open Design Studio doesn't impose a data model. Instead teams can create their own fully relational data model, containing as many tables as they need to meet their own requirements. And all done graphically – no code!

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SOFTWARE PLATFORMS THAT ENABLE RAPID APPLICATION DELIVERY WITH A MINIMUM OF HAND-CODING, AND QUICK SET UP AND DEPLOYMENT, FOR SYSTEMS OF ENGAGEMENT.”

FORRESTER RESEARCH

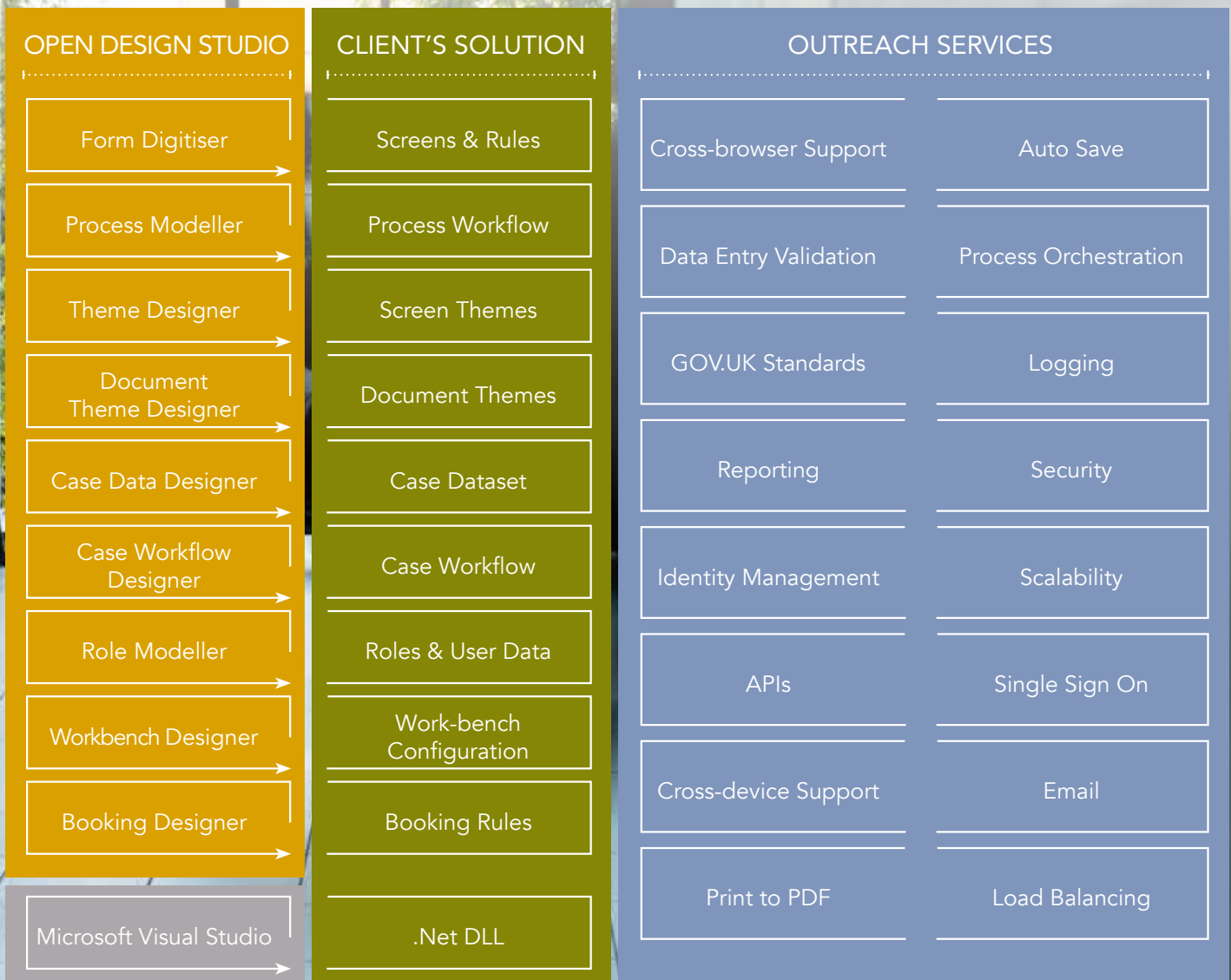
# Architecture

**Open Design Studio is the user design tool for Toplevel's Outreach platform. The tool:**

- Provides code-free design tools, extensible through open-source plug-ins giving developers the ability to write their own bespoke code for complex environments
- Provides a range of backend connectors, API plug ins and cross device support
- Allows flexible deployed options depending on customers' requirements and data compliance requirements
- Is accessed through a secure web interface allowing remote and co-location working

**Open Design Studio is a low code design platform**

What is low-code? Low-code is a hybrid software approach that provides an 'out-of-the-box' application development platform that enables rapid creation, collaborative development, quick set up and deployment of applications with a minimum of hand coding in a COTS environment, but also includes the flexibility to alter coding, develop open source extensions and automatically (in the case of Outreach) integrate with back-end security and enterprise systems.



# Design Tools

Open Design Studio provides developers and business users with a range of development tools:

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**Process Modeller** – Allows the simple graphical modelling of business processes such as workflows and approval processes that give the ability to configure human and automated process stages. Use the Tools Ribbon to include conditional, export and notification stages as well as manual response stages.

**Case Designer** – A drag and drop graphical modelling tool to model and publish the hierarchical case data you want to store. Creates tables, columns and relationships in the case database from simple, graphical models.

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**Case Workflow Designer** – Enable case workflow lifecycle modelling. Case Workflow Designer allows steps and user prompts to be predefined. For example a workflow lifecycle for a grant might include: Send contract, Receive signed contract, Make first payment, Receive phase one report, etc.



**Form Digitiser** – Allows developers and business users to simply develop electronic forms and digital services. Users can define sophisticated, dynamic, multi-page transactions that work across device types, whether on or offline. Use the simple Tools Ribbon to create screens which include fields, guidance, navigation and links to external content.

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**Document Designer** – Creates themes for documents produced or stored in Outreach. Outreach can create PDFs (e.g. for letters, certificates, agreements) from design templates for those documents, including fonts, images, colours and boilerplate text, so that you can supply professional looking documents to your clients and users.



**Theme Designer** – Enables client-specific branding and visual design preferences to be applied to pages with little or no CSS or HTML knowledge. Separate themes can be applied to public and staff dashboards and to individual services.

**Workbench Designer** – Is a simple-to-configure dashboard to give staff and customers quick access to the functionality they need and prevent access to restricted functions. Options include: in-tray of outstanding tasks, messages tab, case store, search facilities, menu of new tasks and reports area.

**Roles Modeller** – Configure the different roles you need for staff, customers and other external users. Even set up multiple groups each with its own combination of roles. Outreach uses roles both to restrict access to sensitive information and to tailor the user experience (UX) presented to suit the needs of individual roles.

**Booking Designer** – Is a wizard-driven design tool allowing users to quickly set up resources for appointment bookings or course bookings or both. The wizard allows specification of dates, can limit the amount of bookings offered, set up reminders and confirmation messages, set pricing and availability rules, option around self-service booking, add images and text and provides advanced features like members-only bookings.



**Visual Studio Developer Toolkit** – Developers can extend functionality by adding code using the familiar .NET Visual Studio environment. .NET developers can use their Visual Studio skills (Including C# and VB.Net) to code logic which can also be reused in future projects. Web-based APIs provide technical architects with the means to develop Service Oriented Architectures (SOA) that enable powerful integration with back-end systems. Requires Microsoft Visual Studio.

## ADDITIONAL OPTIONS

- As a part of the tool kit users have access to Microsoft's SSRS Report Builder to quickly create layouts for the reports you want, including tables, matrixes, lists and charts
- Web-based learning – Users have access to a library of self-help e-tutorials enabling the user to rapidly assimilate and apply designs

OPEN DESIGN STUDIO DOESN'T IMPOSE A DATA MODEL. INSTEAD TEAMS CAN CREATE THEIR OWN FULLY RELATIONAL DATA MODEL, CONTAINING AS MANY TABLES AS THEY NEED TO MEET USING A SIMPLE GRAPHICAL INTERFACE. NO CODING REQUIRED.



## Additional Capabilities

### NETWORK AND SOFTWARE INTEGRATION

Data exchange and network integration with complex backend IT systems are a constant challenge for digital projects. Open Design Studio provides advanced integration and scalability capabilities that save implementation time and costs:

- Native Integration for Open Standard data formats – point-and-click techniques and support for formats including; XML, PDF, CSV, text file, ADO/ODBC compliant database, simple JSON/RESTful, SOAP web services
- Powerful custom integration options for programmers – our developer module allows for programmable logic to be added using standard programming languages. For example, there is a comprehensive API and complex JSON/RESTful, SOAP web services can be architected to support an SOA architecture if desired
- Third party software integration – Open Design Studio’s integration with Scribe allows rapid configuration of connector-based integration with popular COTS products (e.g. MS Dynamics, SAP, Oracle). A library of ready-made connectors for over 40 popular software packages including Microsoft Dynamics CRM, Salesforce and Oracle. Saves time now and in the future when third party applications are upgraded
- Scalability – The underlying Outreach platform is designed to be able to scale to support the largest citizen-facing public sector requirements and provides the ability for services to scale to tens of thousands of current sessions through inbuilt load balanced configuration options

### SECURITY

Open Design Studio benefits from Outreach’s smart ‘security-built-in’ model for public sector organisations that demand high levels of security, making it a low-risk, fast deployment product. Security features range from access control for sensitive data through inbuilt password protection, digital signatures, fine grained access control, one time security codes and single sign-on functions, as well as white and black listing and user auditing.

Architecturally, Outreach provides inbuilt protection from DoS attacks, strong encryption (AES 256), and encryption of all data at rest, antivirus integration and ISAPI allowing for dual skinned firewall architectures.

In addition Open Design Studio provides three additional levels of access permissions to allow for Multidisciplinary Authoring, which enables multi-skilled teams to collaborate and boost productivity. This is supplemented by a “Safe-Mode” option, which guards against team members introducing accidental errors.

1. Developers – Unrestricted access to all application design features and code.
2. Analysts – Add configurable logic and business rules – no code required.
3. Contributors – Edit text, elements of visual form styles and placement of fields.





## BROWSER AND MOBILE SUPPORT

Toplevel aims to provide a great user experience that promotes accessibility and inclusivity for citizens which is why Open Design Studio natively supports all common browsers. Our R&D programme keeps us up-to-date with all the latest browser developments with the likes of Google Chrome, Internet Explorer, Safari and Firefox on desktop PCs and mobile devices.

Secondly we maintain legacy compatibility - Many services are run over legacy browsers as many end users are using older devices (Data.Gov.uk site usage shows over 70 percent of browser versions are more than a year old), our browser support extends back to 2001 and includes:

Mobile devices – Open Design Studio supports applications on any tablet, smartphone, PC or laptop running any browser and is automatically responsive. In addition our mobile data module collects data over 3G, 4G, and Wi-Fi.

## WORKING OFFLINE

Outreach's Mobile Data Collection Module (MDCM) provides the ability to simply design applications that have offline functions built in automatically, and does away with the need, time and cost associated with building platform specific mobile apps or the additional code required for offline working.

MDCM allows process tasks to be started from any offline device with an HTML 5 browser, the data collected can then be stored on the device for later uploading. When connected to the internet these offline processes can be uploaded to be completed or submitted like any other online process.

Browser support includes: Internet Explorer 10 or above, Firefox 3.5 or above and Google Chrome 4.0 or above, Safari on the Apple Macintosh and iPad, and Dolphin on Android devices.

### Open Design Studio allows developers to utilise their skills:

- Support for embedded VB.NET scripting, or custom .NET DLLs Outreach's architecture makes it readily extensible by developers. Published open source extension modules including a GOV. UK toolkit encourages customers to share and reuse their extensions
- .NET extensions including a Visual Studio plug in that allows developers to write and repurpose code easily for future agile deployments using their familiar .NET development environment
- Web APIs provide technical architects with the means to develop Service Oriented Architectures (SOA) that enable easier integration with back-end systems
- Comprehensive API Library

# In the Cloud or On-Premise

Open Design Studio is a fully web-enabled platform. Users access services via a secure web interface eliminating the need for local installation. Developers and non-technical staff can liaise and collaborate with partners irrespective of their location to construct and build services from any location. Open Design studio can be utilised as a managed SaaS Cloud service or housed locally.

- In the Cloud – Software-as-a-service (SaaS) offering based on Digital by Default service standards. Services are hosted in UK data centres and supported by ITIL-based management service that intelligently prioritises service delivery according to business needs. We have a track record of high availability which constantly surpasses our uptime SLA of 99.5%
- On-Premise – Required windows based platform running either: Vista 2008, Windows 7 2008 R2, Windows 8/8.1 and Windows 2012/2012 R2

## SERVICE HIGHLIGHTS:

- Zero installation costs – eliminates the need to install and maintain applications on the local user workstation by providing access via the web or a secure Cloud-based SaaS service
- Flexible working – enables the coordination, configuration and deployment of services with colleagues or third parties
- Cloud Service uptime SLA of 99.5%
- Facilitates BYOD by enabling users to securely access Open Design Studio from any device



# Real World Savings

An organisation which runs multiple diverse award and aid schemes and is constantly innovating by designing new programmes wants a single unified case management system. It must enable staff to manage cases including application approval, claim checking, payment scheduling and outcome monitoring. It needs to be customer centric with easy online digital services that customers can access from any device or browser. Services include online digital

applications, claims, progress tracking and reporting plus customer/caseworker collaboration throughout the project lifecycle.

To reduce administrative overheads, the customer uses Open Design Studio automated business rules improving eligibility checks, speeding up approvals and focusing moderation and QA activities onto key areas.

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## HOW DOES USING OUTREACH AND OPEN DESIGN STUDIO COMPARE TO A BESPOKE DEVELOPED SOLUTION TO DELIVER THIS SCENARIO?

- Outreach and Open Design Studio – A team of 3-4 staff delivered the end-to-end case management system for 4 programmes. It took them 5 months, representing a total effort of 275 man days.
- A bespoke development approach using ASP.Net with SQL Server – A team of up to 25 staff delivered a working prototype of the digital front-end for 2 programmes in 3 months. It cost £500,000 and the project was not taken forward into Beta, due to the high cost predicted to complete it.

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## AN EXAMPLE OF THE PROCESSES NEEDED TO DELIVER THIS SCENARIO:

- Simple end user self-registration as well as options to reset passwords and edit user details
- Automatic eligibility checks and application wizards for each application and the ability to add additional grants to the system without the need to re-code
- Processes and workflow for each application to handle the flow from eligibility check to the application screen(s)
- Safeguards to prevent multiple applications by a single user(s)
- Customisable workflows with steps for emails, user notifications, reminders, document attachments and file notes and simple integration with existing back-office case management systems
- Autosaving of data, so that as a user progresses through the wizard it allows them to return and complete the process later
- Separate Workbenches to allow users to initiate and track their applications, and for staff to process the applications and assign assessors
- Role-based security configurations to control staff access to the assessment and process of different grant applications
- A pay-out schedule and the requisite integration with their existing accounts system
- The ability to print applications to PDFs
- And finally... Cross-browser and device support for all common platforms as well as legacy support for older systems still in use (e.g. Microsoft IE6)

### FINAL COMMENT

To find out more about how Open Design Studio, our Outreach platform or our GCloud services could help you with fast agile digital project development with a strong focus on user need, adapt to and accommodate changing working practices or enable your team/s to utilise our low-code platforms for anything from zero code to bespoke development, please take a look at our website [www.equiniti-toplevel.com](http://www.equiniti-toplevel.com) or give us a call on 01453 852 700.



## About Equiniti Toplevel

**Toplevel provides end-to-end digital and case management solutions that allow Public Sector organisations and individual case-workers to interact more easily with other departments and the citizens they serve.**

**We improve customer experience and help staff to do their jobs quicker and better by replacing paper, telephone and face-to-face services with more efficient digital alternatives**

**EQUINITI**  
TOPLEVEL

Call us now or use the enquiry form on our website to discuss how we can help you deliver your next project

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