

CASE STUDY

kanary®

Clearcode gets Kanary acquired by an advertising giant
by building a demand-side platform (DSP).



CLEARCODE

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“They simply build things better than the rest - period.”

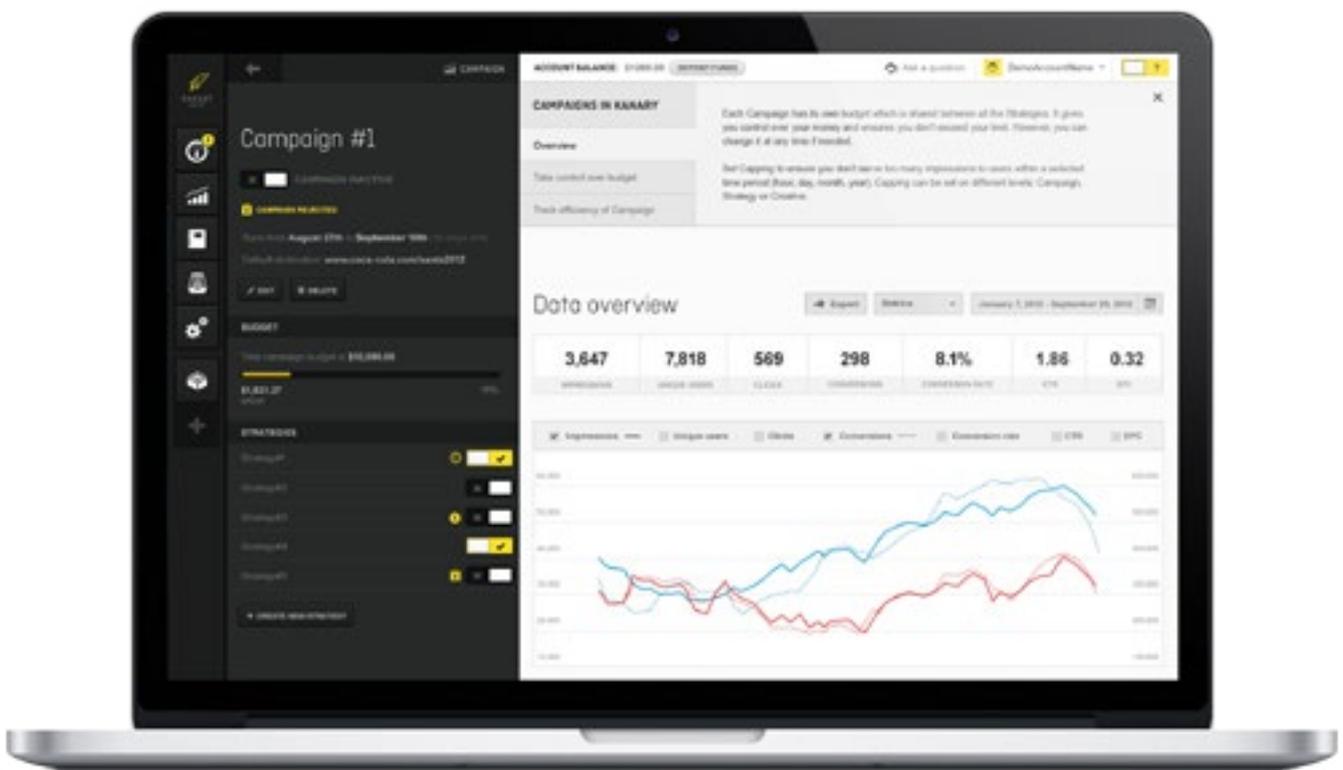
Alex Wheldon, Director, Kanary NEST

One of the most notable and influential changes to the online display-advertising industry over the past decade has been the introduction of real-time bidding (RTB). This complex process provides many benefits to both marketers and publishers.

For marketers in particular, they can target the right audience, expand their reach, better control their marketing budgets, and optimise ROI.

Unfortunately, there is a lot of obscurity within the industry, especially regarding the actual cost of impressions.

That’s where Kanary comes in.



About Canary NEST

The data-driven DSP for programmatic media buying - designed for marketers.

Kanary NEST provides advertisers with an easy way to buy display ads by using programmatic buying (RTB technology) with fully transparent reporting of media spend, conversions, and media-buying commissions.

The goal of Canary was to build a fault-tolerant, scalable demand-side platform (DSP) that optimizes the user experience and provides a clear and interactive user interface that can be operated by even the most novice user.

Establishing and creating a recognizable brand image and designing the UX/UI were also vital to the success of the project.

The Challenges

The main challenges involved developing a platform that could handle billions of bid requests and display the data in real time.

In addition to the technical challenges, we also had to address the visual and data presentation aspect, which involves displaying the massive amounts of data in a clear and easy-to-understand way. To overcome this challenge, we had to come up with a user experience and design strategy that would produce a user-friendly interface allowing all users to easily understand their campaigns' performance.

After evaluating the current state of the real-time bidding process and identifying challenges and opportunities, we came up with a list of features that would provide clients with the following:

Targeting and retargeting capabilities to successfully deliver ads to their target audience.

A user-friendly and intuitive interface that allows users to easily identify the performance of their campaigns and operate the software with as little technical support as possible.

The Solution

Our full-service team handled all the design and technical aspects of the Canary project.

Here's a description of the main areas of the project and their respective outcomes:

Bid requests

Receiving, handling, and processing bid requests are the core functionalities of the Canary platform. We designed the system architecture and scaled it horizontally, which allowed the platform to handle billions of daily bid requests, while at the same time utilizing limited infrastructure.

Platform performance

We developed the backend of the platform using multiple software-development solutions and tools, including Python, Twisted, Redis, Storm, and others. This modern and powerful combination enables the platform to maintain ultra-fast performance.

Branding, UX/UI

The frontend part of the application provides clients with a unique user experience that has not yet been seen in advertising technology solutions. It was built using JavaScript with Knockout JS as the framework to ensure complete usability. The UX/UI design elements emit a recognizable brand image and deliver an easy and intuitive user experience to what is otherwise a highly complex technology.

In order to provide marketers with access to the major biddable display-advertising inventories, we integrated Canary with AppNexus and ad exchanges supporting OpenRTB protocols, such as Nexage.



The Platform's Features

Below is a list of the platform's features and their goals:



Powerful campaign management

Manage any number of campaigns, test different variations, and experiment with numerous campaigns.



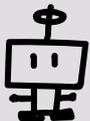
Easily scalable, fast bidder

The high-performance platform is capable of handling and processing billions of daily bid requests on limited infrastructure.



Advanced analytics

Clearer, more transparent, and deeper insights into each campaign, ROIs, and each impression cost with real-time analytics.



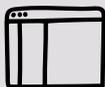
Manual and automatic optimization

Possibilities to optimize impression purchases through intelligent learning as well as an easy-to-use interface for marketers and ad ops that allows them to whitelist and blacklist overperforming or underperforming targeting criteria (such as inventory sources) with a single click.



A shared vault with resources

Ads are stored in one place and can be accessed all at once.



Future-proof UI

Prepared to be extended and integrated with third-party apps.



Data onboarding for first- and third-party data

Onboard campaign-targeting data from a variety of sources, ranging from marketing automation tools, to custom first-party audiences (such as IP addresses or device ID lists), through to integration with various third-party data sources.

How We Delivered a Successful Project to Canary NEST

Our extensive experience of developing RTB and ad-tech solutions and our broad understanding of this fast-changing industry were instrumental in planning, building, and launching a scalable, high-performance platform.

Another key to our success was our ability to service all areas of the software-development process - from design, to development, through to the maintenance and support of the platform.

This seamless cooperation within our full-service team enabled the project to progress at a fast pace and eliminated the risk of miscommunication and delay during the crucial crossover stages.

Results

We built the project from the ground up and launched the MVP to private beta testers. Based on the feedback received by initial users, we made improvements and continued to develop the platform.

The platform was featured in the TechCrunch Disrupt 2013 conference in New York and received a lot of positive feedback from attendees.

In August 2014, Canary NEST was successfully acquired by online advertising giant Gravity4.

CLEARCODE

We specialize in building custom analytics and enterprise-grade SaaS platforms for the advertising and marketing industries.

As a trusted technology partner to our clients, we deliver services at every stage of the project's life cycle: from planning and feature identification, to UX/UI design and prototyping, development, through to application support & monitoring.

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