

CASE STUDY

Micro-purchase Platform – United States

SUMMARY

The process of government procurement is a critical but complex element of nearly all government programmes, and is viewed by many as one of the most significant barriers to innovation. 18F,⁷⁴ a digital service innovation team in the United States government, has turned procurement rules on their head by launching the Micro-Purchase Platform, a reverse-auction system that leverages legal flexibilities to obtain software development through simple credit card purchases.⁷⁵

74. See <https://18f.gsa.gov>.

75. See <https://micropurchase.18f.gov>.

Figure 6.9: 18F Micro-purchase Platform Insights



Source: <https://micropurchase.18f.gov/insights> (accessed 16 January 2017).

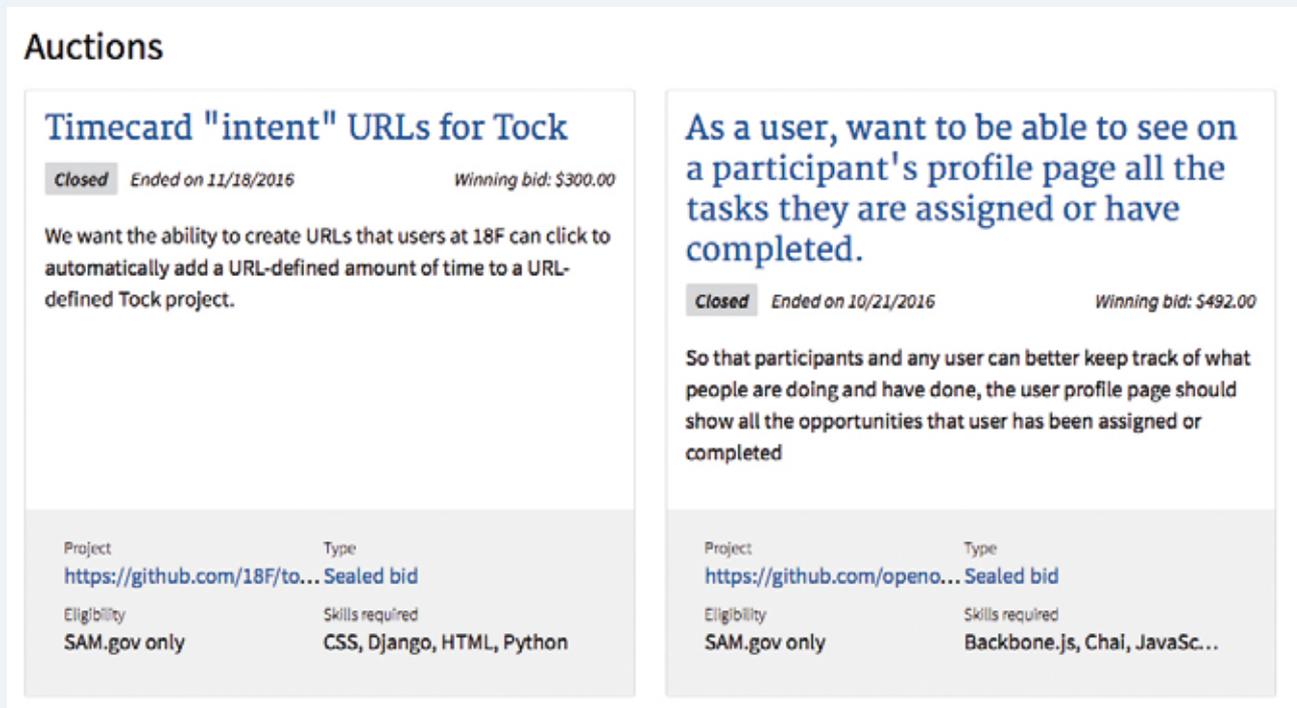
THE PROBLEM

Contracting for software is often an arduous process. The Federal Acquisition Regulation (FAR), which sets the rules for procurement in the United States government, is nearly 2 000 pages long and difficult to navigate to obtain the products and services needed for civil servants to achieve their missions. Because of its complexity, government employees can struggle to know how to buy services in an agile way. Additionally, innovative start-ups and other small businesses can face high barriers to entry to the Federal market. Many vendors are not willing to expend such effort, which can result in the same pool of large vendors that know the system competing for the majority of contracts. The challenges on both sides of the market result in purchases that take months or even years to complete, with limited competition resulting in reduced value for government. The complexity also encourages “waterfall” software development, where all needs are stated up front.

This results in products that are much more likely to fail than agile products, and which are outdated by the time they are released and do not meet user needs.

AN INNOVATIVE SOLUTION

18F has launched the Micro-purchase Platform, an auction-bidding system for open source software development that allows project teams to obtain software features needed to better perform their duties, faster and more cheaply than through traditional processes. The platform works by leveraging an underutilised legal flexibility called the “micro-purchase authority”. This authority allows Federal agencies to use a credit card to directly buy products and services, as long as the price does not exceed USD 3 500, and is most often used to items such as office supplies. This allows agencies to avoid complicated and cumbersome procurement rules for small purchases. Micro-purchase auctions are set up for

Figure 6.10: Recent Micro-purchase auctions

Source: <https://micropurchase.18f.gov/insights> (accessed 16 January 2017).

a specific software feature needed by 18F or one of their clients. They either use sealed bids or take the form of reverse auctions that start at USD 3 500, where interested software developers can bid for the work, with each bid being lower than the last. Upon completion of the auction requirements, 18F pays the winning bid amount to the winner.

18F as an organisation is an innovation in itself, and its stated goal is to serve as a testbed for innovation. It takes the form of a digital services development and consultancy start-up housed at the centre of the United States government, partnering with agencies to transform how they deliver digital services and technology products to the public. 18F has several core values that the Micro-purchase Platform is designed to strengthen throughout government.

- **User-centred design:** building digital services that solve the needs of users and are enjoyable to use.
- **Agile:** using iterative development techniques that deliver value in short sprints that enable a regular feedback loop and continuous improvements.

- **Open source:** working in an open, transparent way and making all products and code fully accessible to the public to build trust and enhance value.

Consistent with these values, the objective of the platform is to encourage new vendors to work on open source solutions to small problems that would be too cumbersome to address with traditional contracting methods. Because the auctions are a feature that solves a clear and contained problem, they help to quickly meet the needs of users in an agile way. Brendan Sudol, the winner of the first auction and now an 18F employee, told us that this is key to the success of the programme and to attracting developers. Through the platform, 18F also sought to provide another reason for United States agencies to support open source code by using the platform as a way to demonstrate how open source solutions make it easier for government to build software applications.⁷⁶

76. More information about the Micro-purchase Platform and the option to bid on a reverse auction can be found at <https://micropurchase.18f.gov>. To use 18F's code to build a platform, visit <https://github.com/18F/micropurchase>. 18F can be followed on Twitter @18F.

“I want federal procurement to be joyful. I want us to think about buying software and buying professional services as not a thing to be dreaded, but a thing that should be easy and frankly fun.”

Dave Zvenyach, Acting Director of 18F⁷⁷

NOVELTY

Although not all that common, government procurement auctions do exist. However, the Micro-purchase Platform is the only known platform offered as open source and built with the purpose to automate decisions to foster confidence and an agile and innovative culture in government.

IMPACT AND RESULTS

The first micro-purchase auction was won for USD 1, and the vendor delivered functioning code to enhance government software. Independent estimates⁷⁸ show that, through using the platform, 18F pays about half the rate they would have through traditional means, saving USD 1 000 per auction. 18F has since held a total of 37 auctions, which they estimate saved the government USD 70 990. Unlike the weeks, months or years traditional procurement can take, the average delivery time on these projects was eight days. So far, 96 small businesses have newly registered to do business with the government. A client who uses auctions for her programs stated that it has allowed her to obtain features she might not have been able to otherwise secure, as resources and in-house developers are scarce.

“I figured it would be cool to be a part of this first micro-purchase experiment, and demonstrate that there are people (at least one but I think a lot more) willing and excited to help out on meaningful, civic-minded initiatives. I love working on little web projects in my free time. This is USD 1 more than I make on those, and this one actually helps people.”

Brendan Sudol, winner of the first Micro-purchase auction, and now an 18F employee⁷⁹

77. Source: <http://publicspendforum.net/2016/06/16/18f-dave-zvenyach-podcast>.

78. See www.federaltimes.com/story/government/acquisition/2016/08/15/micropurchase-auctions-18f-getting-big-value-small-buys/88401228.

79. Source: <http://brendansudol.com/writing/18f-micropurchase>.

Even failures can result in positive results. There have been rare occasions where auctions have failed because the vendor was unable to complete the requirements. Seeing this as an opportunity, 18F holds “blameless retrospectives” in these instances, where the auction team and the vendor come together to determine what went wrong and how to prevent it from happening again in the future.

Declaring the Micro-purchase Platform a success worthy of scaling, 18F has plans to build upon this innovation in the future. The team is eyeing ways to hold auctions at values above the USD 3 500 level by automating some of the processes and documentation needed for larger procurements to make things simpler for government officials. Additionally, they are exploring adding “self-service” features to the platform to make it easy for other agencies to post and manage their own auctions.

REPLICABILITY

Procurement is universal. Just about every public sector organisation at each level of government must procure goods and services in order to meet its mission. Frustrations with procurement complexities are perhaps just as universal. Any country that has similar rules around small purchases could develop their own platform, and the 18F team makes it easy. 18F describes itself as an “open source team” and has a default position to work in the open and publish all source code created for or by 18F. In following this philosophy, all of the source code for the Micro-purchase Platform is available on GitHub for replication. The platform has already been “forked” by the country of Singapore to set up a similar system,⁸⁰ with significant potential for other countries to do the same.

CHALLENGES AND LESSONS LEARNED

18F officials who were interviewed stated that the main challenges they faced were mostly bureaucratic in nature, including long processes to enter into agreements to work with other agencies. Such challenges can slow scaling of the platform to other agencies. However, 18F officials explained that these challenges can also help them to identify the most pressing “pain points” and seek solutions for automating them through the platform.

80. See <https://buy.gds.gov.tech>.