U.S. Forest Service

ePermitting discovery workshop 2/ Christmas trees

Session held on August 30-31, Fort Collins Colorado

18F

What we did

On August 30 and 31st, 18F led a workshop with [stakeholders](#) from the U.S. Forest Service. The purpose of this workshop was to build a vision for an ePermitting pilot for annual Christmas Tree permit programs. We also gave an introduction to agile software development methods and modular contracting.

How to use this report

This report is a guide to understanding the opportunities and challenges, hopes and fears presented by the Christmas Trees ePermit pilot. This is not an all-inclusive report for *every* possible outcome, but will help frame a joint understanding of the goals of the pilot, and begin the process of figuring out how to get there through an acquisition strategy using the Agile BPA. Methods described herein can also be used by anyone; continued discovery and conversations are encouraged as we continue to document findings through conversations with Forest Service employees and others.

Workshop overview

We set the stage to attempt to address the following key areas through the workshop:

- Defining the high-level project and product vision: what's the problem we're trying to solve?
- Mapping the product ecosystem and current process
- Protosketching exercise
- Modular contracting, scoping the first buy*

* We anticipate the need for further research to refine ideas around a tighter definition for the scope of the first buy.

Project and product vision

We began with a series of activities designed to help us build a vision for the Christmas Tree permit pilot and enhance our understanding of the broader ePermitting project.

We brainstormed answers to each of these questions through a series of exercises. We focused on building our understanding in these four key areas:

1. What's the problem we're trying to solve?
2. Who are the users?

3. What are their needs and pain points?

4. What features are key to meeting their needs?

Understanding hopes and fears

We began the day by gaining insight into participants hopes and fears for a Christmas Tree ePermitting pilot. Some participants expressed doubt early that Christmas Trees might not be the logical place to start, and others voiced concerns that the pilot would still need to address existing challenges, business processes and issues with the backend systems that are required by other permits. We attempted to surface these early on by having participants identify particular hopes and fears for the project.

Hopes for the project centered around **improving business processes** and an **easier process for the public.** Ensuring that backend systems (TIM, POSS, others) were adequately integrated, and that existing workflows were not complicated by a new tool were among hopes directed to improving business processes. Providing public access with alternate ways than cash for purchasing permits and a smoother user experience were among comments directed towards an easier process for the public.

Fears in some ways echoed hopes, but tended to focus on the feasibility of implementation given the different ways different forests implement the program, and its short-term nature. Comments tended to group around **implementation** and not giving adequate attention to existing, **embedded legacy systems**.

The full list of hopes and fears can be found in the appendix.

What is the problem this project is trying to solve?

Discussions and feedback centered around two key areas: solutions for the *public* and solutions for *internal operations*. Discussions around internal operations presented the most challenges, with participants voicing concerns over workflow, the creation of additional work, and concern that a thorough understanding of all the systems involved was not presently known.

In order to solve these challenges, the two could be summarized best through the following cards:

Solving for the public:

- The solution should "**give the public an option of not coming to an office during set hours, and provide more flexibility for the public.**"

Solving for internal users:

- The solution should "**reduce workload for frontline employees (time spent in TIM program).**"

These two broad groups of users were consistently represented over the duration of the workshop.

Other comments surfaced by the group included the following (+ indicates results of dot-voting):

- ++++++++++ Gives the public an option of not coming to an office during set hours, more flexibility for public

- +++++++ Reduce workload for frontline employees (time spent in TIM program)

- +++++Lack of systems that take advantage of current technology for public and USFS; lack of quality electronic service to public

- ++Ability to learn more about the forest and discover more than Christmas trees.

- +Meet customer's needs for those who do not have a computer and / or printer.

- + Availability to user / public during non-office hours; allow people to get their permit anytime during the season

- + Allow people not to pay cash

- Another way to purchase a Christmas tree permit

- Lack of online options for public for SFP permits

- Preventing customers / purchasers from driving long distances to a FS office for a permit

- Reduce the margin of error caused by our current methods

Who are the project's primary users?

As with the previous workshop, primary users were defined in two groups: those being inside the Forest Service and those (primarily the public) outside of it.

- Inside the Forest Service:
    - Front-office staff
        - Front liners (employees operating the front desk)
        - Collection officers (responsible for collecting $$)
    - Back-office staff
        - Program coordinator (SFP)
        - Resource specialists
        - Timber management
    - Others
        - Volunteer FS employees working an event
        - FS law enforcement (can also include external law enforcement)
        - Public affairs individuals
        - Staff officers
        - Washington Office (WO) financial staff
        - Recreation staff
- Outside the Forest Service:
    - Single pass holders
    - Families, people who celebrate Christmas
    - Outdoor enthusiasts

- ○ Urban first-time visitors

- ○ Groups, such as church groups

- ○ Organizers of planned events

- ○ Vendors (Ace Hardware, local Chamber of Commerce, etc.)

- ○ Others (lottery participants, other event planners, financially savvy individuals wanting to save money by cutting down their own trees)

What are the pain points those users face?

- From permittees:

    - ○ Users cannot complete the process on-line or with a credit card

    - ○ Users don't understand the process or guidelines

    - ○ On-site hours of service are limited, and can get busy during peak times

    - ○ Different Forests operate differently, and have different requirements which confuses users

    - ○ Users have to sometimes travel to get a permit, and may not have the right information when they arrive.

    - ○ Sometimes the payment system goes down, so users can't pay for the permit on site

- From inside the Forest Service:

    - ○ Problems with legacy system workflow

    - ○ Increased volume during special events and weekends

    - ○ Limited quality control

    - ○ Process is intertwined, difficult to understand and complex

    - ○ Accountable property workload (AD107)

    - ○ Christmas tree product plan limitations (expired, or at capacity)

    - ○ Limited staff / time / resources

    - ○ Cost recoverability

What are the key features of a solution?
Key features were organized into ease-of-use / mobile features, educational features, financial / integrated systems features.

Financial / integrated systems features
- An application that automates integrations and provides one interface for permit sales, monitoring and accounting. Integrated systems (TIM, POSS, etc.) would be seamless to the end user.

- An application that manages the accountability of the permitting workflow for Forest Service employees.

- A way to interface with both internal and external users of the permitting system.

- A way to request a report for accurate sales records and the permit numbers.

Educational features
- A way to acknowledge the terms and conditions of the permit through the online permitting process, and a way to print the information later.

- A way for a user to select an area from a map to request a Christmas Tree permit, and get directions to the location.

Ease-of-Use / mobile features
- An easier way for the public to purchase a Christmas Tree permit from a link off of a Forest Service web page, and find maps for the site where I'm going to get my Christmas Tree.

- A tool to let me purchase a Christmas Tree permit from my phone.

- A tool to allow field staff a way to process Christmas Tree permits in the field, without paper and / or an internet connection.

- A tool that will email me a permit and / or receipt after I have purchased a Christmas Tree permit.

- A video that explains how I can purchase a Christmas Tree permit.

Existing user journey

We [journey mapped](#) the current experience for front line staff responsible for processing a Christmas Tree permit. We focused on the experience from the front line staff's perspective, since it helped uncover the complexity of the back end processes. It should be noted that individual Forests may follow very different processes, which means that any solution would need to be better than existing solutions and work for the majority of the pilot forest locations.

This journey map is *not* an exhaustive, sequential list of tasks. It is meant to provide examples of what the front line staff encounter during each stage of the process, according to our workshop participants.

Day one journey map:
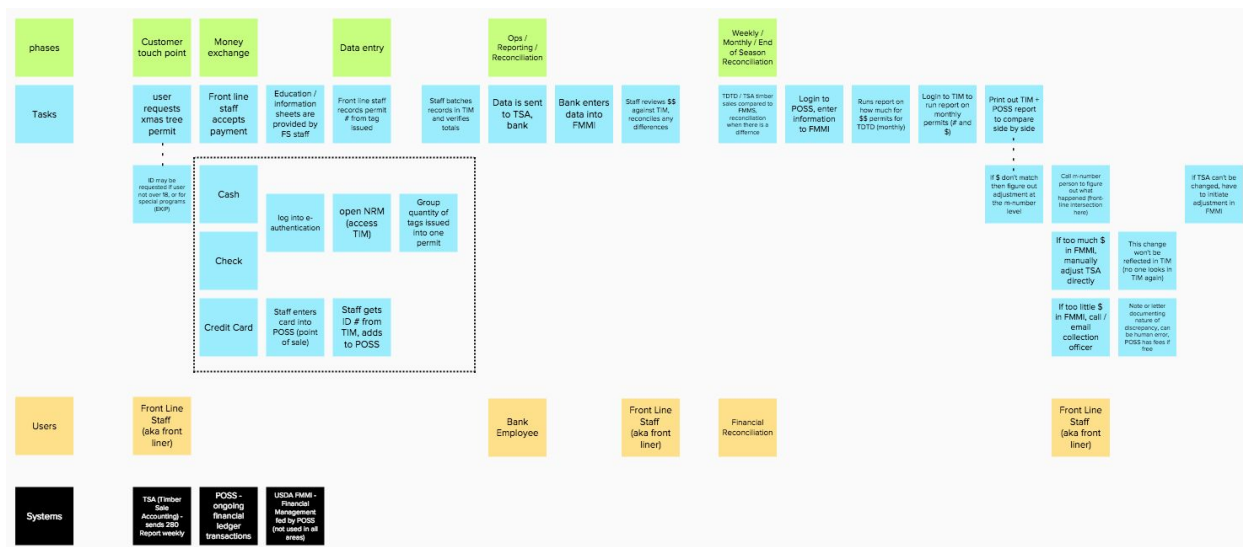
Day two journey map:
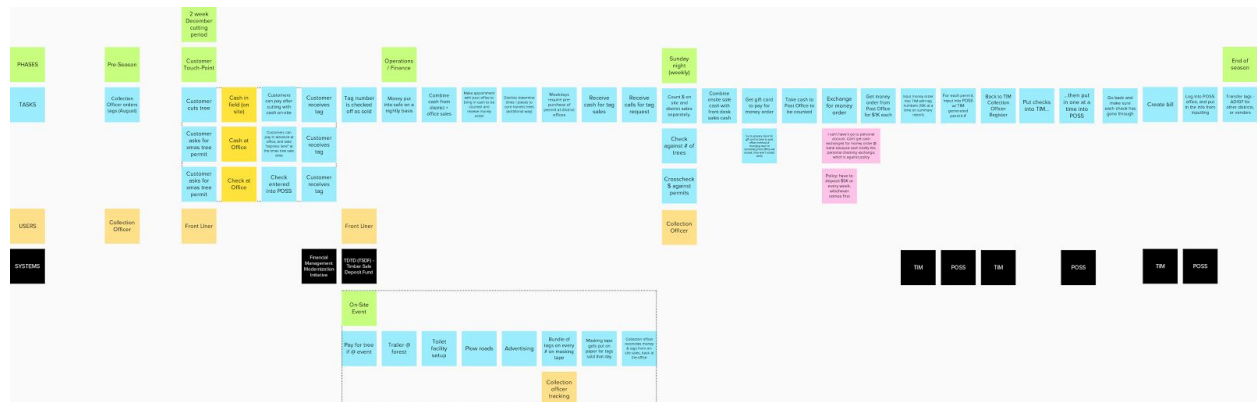
Note: PDF versions of the journey maps are attached to the email that accompanies this report. If you would like access to the PDF documents or the journey map boards, please email Chris Goranson at christopher.goranson@gsa.gov .

An exercise in protosketching and agile

Based on the findings of day one, we split our workshop participants into two groups and engaged in an [agile protosketching exercise](#). We also provided an introduction to [agile software development and modular contracting](#). We focused our discussion around a "minimum viable product" 18F might help construct.   We shared some demos of other online tools that improved the user experience for other permitting applications.

After the presentations we created two workshop teams - one geared towards a public user who wants to complete the Christmas Tree permitting process; and one geared towards the front-desk staff (or other FS staff member) who wants a system that will address some of the back-office issues. We discussed the basics of agile, and covered user centered software development. We framed three sprints for the AM session, covering the "rules" of each sprint. Each sprint lasted 30 minutes long, and each team was required to present, even if it was "we have nothing to present for this sprint".

The goal was to iteratively sketch out, and time permitting, prototype a solution that began to address the needs of either a public facing, front-end solution, or a systems integration, backend solution.
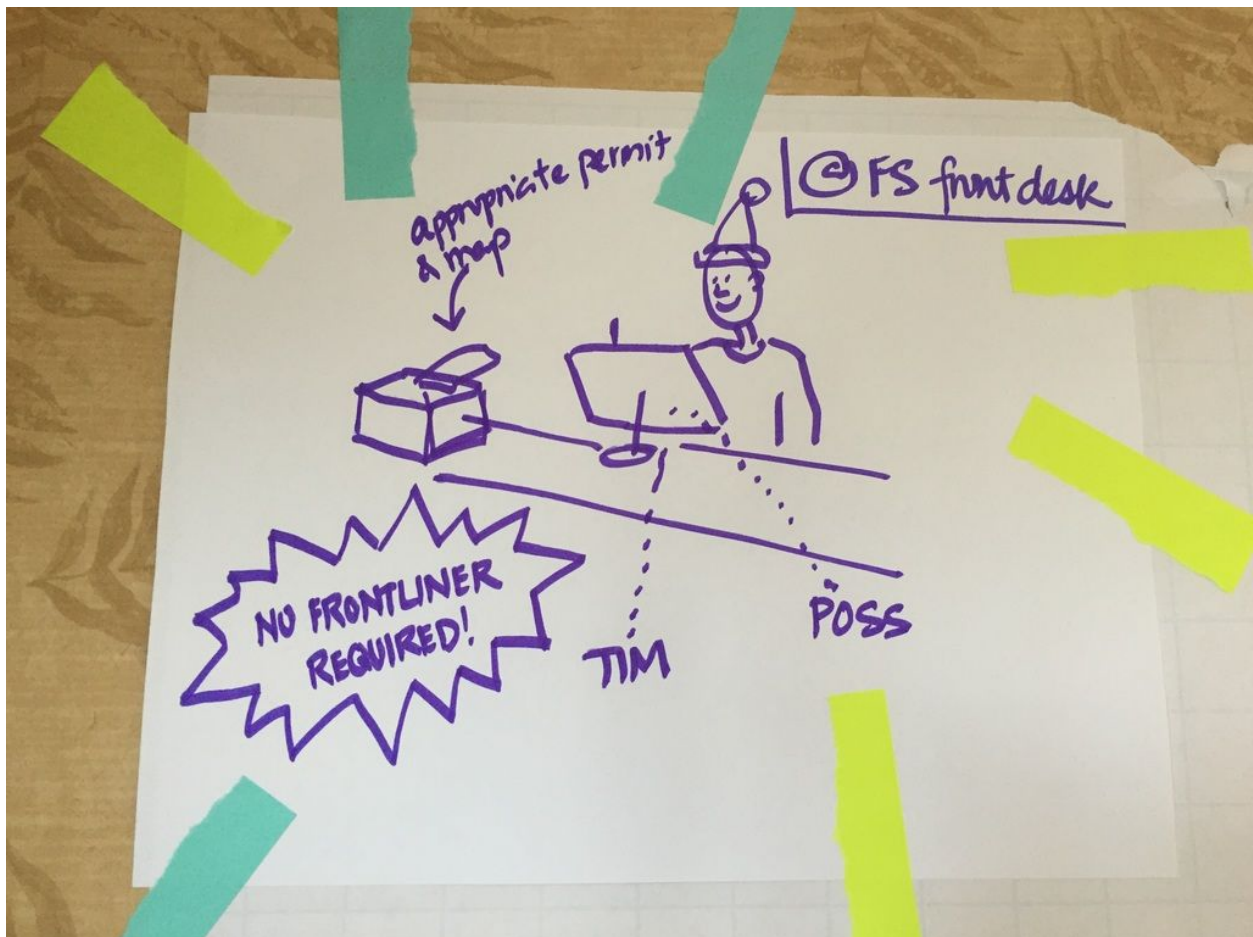
Sprint 1

During Sprint 1 individual team members started with a user story from yesterday and begin wireframing out at least one screen for a solution they believe begins to address key pain points identified yesterday. Each workshop team (with 18F co-facilitators) came back together. Each member of the team presented their selects a user story or two from yesterday to start with. Each team selected a leading candidate (or groups accordingly), and prepares for presentation back to group.

Team 1: What is the overarching user story?

As a member of the public, I want to find out where I can get a Christmas Tree and permit.

Team 2: What is the overarching user story?

As a Forest Service employee, I would like to issue permits easily.

Sprint 2

During Sprint 2 the group began working towards the next sprint, and worked with the 18F facilitators to manage next steps. Team members could vote on key features, and come to a group consensus. Team members were able to self-assign and keep time at the end to pull all the results back together in time for the presentation.

Team 1:

Team 1 focused on further identifying those features that an end user might need in order to get a Christmas Tree permit in areas near them.

Team 2:

Team 2 focused on what information would a front-liner need in a dashboard form if all of the permitting was self service.

Sprint 3
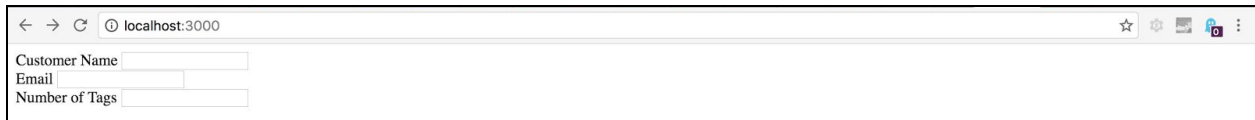
Team leaders continued to iterate the process, and iterate the prototype and with the work of 18F facilitators, created digital prototypes

For
Team 1

Team 2:

Team 2 created a digital version of the paper dashboard prototype. This highlighted that additional standard reports may not have been needed.

Next steps

The results of these workshops will be used to develop the acquisition, product and design strategy and outcomes that will result in the development of ePermitting solutions. As we continue working forward on our discovery plan, the outcomes of the workshops will inform the Agile BPA process in the coming month, and be formalized as part of ongoing research.

Appendix: Hopes and Fears

Hopes:

- Provide a fun, quality product that is efficient for all users

- That it will go smoothly with ePermits and the financial system

- Easy to use application for the public

- Everyone on the same page, everyone walks out with requirement defined

- Easy to use platform that does all the paperwork / databases on the backend automatically

- Unified process that allows for uniqueness of each forest

- Program will auto connect to TIM and FS programs for tracking query

- End product intuitive to the user without "getting lost on the page"

- Auto control # of permits issued to an individual

- Allows for flexibility for Forest-specific program needs

- Allow the customers to purchase a permit without needing to visit an office and pay with something other than just cash

- Get to know more about the process

- Easy and straightforward to use, and has good instructions.

- Results in happy users

- Payments flow accurately and the correct permit numbers go into FEMMI and TSA

Fears:

- Can't get the financial system and permit system to work together with the epermits

- Program that won't work with the current systems and programs not used

- Public frustration, internal frustration with product

- Unable to prioritize project - impact final product

- Managing resources and products - have scarcity in some units - diverse base of products

- System is down a lot

- Miss a stakeholder and have to backtrack

- Get stuck at bigger "policy-type" decision making points

- Create more work, adds cumbersome procedures

- Implementing pilot on pilot forests before it's ready (November 2016 seems really soon)

- Implementing without public information - unified messaging to public and Forest Service employees

- No messaging to vendors

- Every Kid in a Park connectivity

- No clear product owner and / or stakeholders

- Another false start that forests and / or public does not like

- Increasing public expectation

- Uniqueness lost