St. Anthony's Scheduling System Recommendations & Next Steps

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Introduction

Over the course of several months, Cornershop has worked with the team at St. Anthony's Free Clothing Program to thoroughly understand the needs of the organization and the guests to which it provides services, in order to produce a recommendation for an web-based scheduling system for the free clothing program. This document is a high-level review of that recommendation, as well as a specific budget for the development project we foresee.

Summary

In brief, we recommend building a mobile-first scheduling system that serves three distinct audiences:

1. Guests
2. Case workers
3. St. Anthony's staff.

Guests can be further divided into two categories:

1. Individuals
2. Families

St. Anthony's staff can also be divided into separate categories, though these may be the same people, but acting in slightly different capacities:

1. Front-line staff working at the clothing shop
2. Administrators working at their desks

Value Proposition

This scheduling system will allow St. Anthony's to better serve their guests by reducing to nearly zero the amount of time guests must spend physically visiting the facility in order to secure an appointment, a burden especially borne by families who may have to visit several times before "winning" an appointment slot.

Additionally, St. Anthony's staff will benefit: we expect that this improved system will reduce time spent by both St. Anthony's staff and case workers coordinating appointments, and reduce the "no-show" rates for appointments, thanks to improved reminders available to guests.

Because the system will be available in many different languages, St. Anthony's will be better able to serve people who speak languages that St. Anthony's impressive staff don't. Right off the bat, Cantonese speakers will be better served.

While guests who have access to technology will be able to book appointments online, and opt-in to receive reminders of appointments, guests who are truly surviving day-to-day will still be able to visit their case workers or St. Anthony's to get assistance booking an appointment.

We respect St. Anthony's spirit of equity, and acknowledge that this new system may give those who can afford technology an advantage in booking appointments over those who cannot. For example, it will be easier for guests with access to technology to book appointments than for those guests who need caseworker or St. Anthony's help, but we can explore options like putting quotas on appointments booked by regular guests, allowing case workers and staff appointments to have equal opportunity. We believe that overall, a system that is sufficiently user-friendly will ultimately provide significant advantages to guests, case workers, and staff, resulting in higher quality service for all of St. Anthony's guests.

Technical Underpinnings

These recommendations and requirements have been deliberately formulated without making proscriptive recommendations for the platform upon which the system could rest; they are more an inventory of requirements and suggestions Cornershop believes will result in a successful system. Rather than specify this be implemented with a certain language or a certain technology (e.g. WordPress, Ruby on Rails), this document simply outlines needed features and behaviors of the system.

System Overview

We recommend the scheduling system be online and publicly accessible, but implemented as a standalone product, separate from the existing St. Anthony's website (though we also recommend that you link from the public St. Anthony's website to the scheduling tool where appropriate). This system should be designed to be usable on mobile phones (which we envision many guests will use when they're not physically at St. Anthony's), tablets (which we expect to be deployed at kiosks at St. Anthony's for guests and staff to use), and desktop computers (particularly for case workers and St. Anthony's administrative staff).

Implementing the scheduling system as a standalone provides the greatest flexibility for tailoring the user experience to the exact needs of each audience without roadblocks.

However, this scheduling system must integrate with other systems in order to be successful. Specifically, we recommend it be built to integrate with:

- Efforts to Outcomes, St. Anthony's main CRM tool for managing guests
- Azure Active Directory, St. Anthony's tool for maintaining staff accounts/credentials
- A third-party text message delivery service, so guests can receive texts
- A third-party email delivery service, so guests can receive emails that aren't flagged as spam

This system must offer multi-lingual support. While for initial release we recommend the guest-facing interface be available in English, Spanish, and Cantonese, ideally the system would be architected in such a way that additional language support could be added without significant technical hurdles.

A preliminary exploration of the functionality and user flow for guests, case workers, and St. Anthony's staff (not administrators, which we'll mock up as part of the larger project) is available at https://kr91vj.axshare.com/ . This mockup was done to present the user experience for key functionality within a mobile context. It is by no means comprehensive, nor does it provide full accuracy for all aspects of the user experience (for example, the date picker shown in this prototype is not the recommended interface), but it does provide a valuable high-level overview of the functions the system needs to provide, as well as the general flow of the user experience, primarily for guests and case workers. It does not provide any guidance for the functions or user experience for St. Anthony's administrators. We will mock up these functions and UIs as part of the larger project.

Feature Group: User Identification & Role

In order for the calendaring system to work, the user of the system must be known. For guests, we recommend this be implemented via a system that prompts for the guest's name, and (if that name is found), prompts the user to confirm his/her date of birth. We recommend this in lieu of a more traditional "username and password" approach given significant concerns about guests' abilities to successfully retain such information along with only minor concerns about fraudulent use. However, should St. Anthony's decide that a more secure system is required, use of passwords, PINs, or one-time authorization codes could be considered.

Guest user records will need to be synced with St. Anthony's existing guest management software, Efforts to Outcomes (ETO), so that changes made in ETO to things like guest

phone number or email address are reflected in this calendaring platform. Guests will not be expected to maintain their records themselves.

Guest records (presumably in ETO) will need to maintain values for some or all of the following:

- First name
- Last name
- Date of birth
- Guest type (e.g. individual or family)
- Status (e.g. active, as proposed by case worker)
- Gender
- Scheduling horizon (how far in advance appointments can be made, with two weeks being typical)
- Email address
- Phone number
- Last appointment date
- Next eligible date
- Next eligible for shoes date
- Next eligible for jacket date
- Associated case worker(s)

For case workers, we recommend implementing a straightforward username+password approach, with the database of case workers (and their associated clients) maintained within the calendaring system. A “forgot password” function is essential to help these users recover lost login information.

For staff and administrators, we recommend the calendar platform be integrated with St. Anthony’s existing Azure Active Directory authentication system, so that staff members need not maintain credentials for the scheduling platform separate from their existing user accounts for other St. Anthony’s systems.

Feature Group: Appointment Scheduling

The key end-user experience of the scheduling system is the ability for a user to schedule their next appointment. While the exact process varies slightly from role to role (e.g. case workers are making appointments for their clients, not themselves, whereas individual guests are making appointments for themselves), the general requirements are as follows:

1. User is presented with a calendar or other date/time picking interface from which they can choose their next appointment time. “Available times” are determined by a

number of factors, including the person's scheduling horizon (how far in advance they can book appointments, with two weeks being typical), what sort of user they are (male/female, individual/family) with respect to valid slots, when the user is next eligible for an appointment, and so on. The calendaring booking system *must* respect all these factors so that users are only presented with valid and appropriate potential appointments.
2. User confirms appointment time & date, and may opt-in to receive a confirmation of that appointment via text message, email, or (if device has a printer available, which is assumed to be the case for tablets provided at St. Anthony's) print.
3. User opts in to receive a reminder of their appointment, delivered via email and/or text message, at a user-provided number of hours in advance of the appointment.

Guests should be able to schedule appointments for themselves; case workers for their clients; and St. Anthony's staff for any guests in the system.

Feature Group: Appointment Management

The second critical requirement of the calendar system is that it allows for users to review, change, and/or cancel any upcoming appointments they have booked. For guests, this means accessing their own appointments; for case workers, this means accessing all appointments they've made for their clients; and for St. Anthony's staff, it means accessing all appointments.

Ideally, the ability to view/edit/delete an appointment could be made possible via text message, but at a minimum it needs to be doable via the web interface.

Feature Group: Case Worker Guest Management

In order to be able to make appointments for their clients, case workers will need a system in which they can view and manage the guests they work with. This interface needs to allow case workers to:

1. Create new guest records. These may be stored in ETO, if possible, and/or set to a provisional status until St. Anthony's staff can review, approve, and officially add to ETO.
2. Search for, view, and modify existing guest records associated with their case worker account.
3. View upcoming appointments for any and all of those clients/guests.
4. Schedule appointments for any and all of those clients/guests.

The intricacies of the case-worker-to-guest-record relationship have not been fully explored and will require additional technical assessment, because although we know one case worker could have many clients/guests, handling a situation where a guest has multiple case workers has not been planned for.

Note that case workers should be able to schedule and cancel/view/reschedule appointments for their clients in almost exactly the same way as guests themselves do, which includes configuring a reminder message (via text and/or email) that is sent to the guest. At this time we do not think case workers need to receive reminders, just guests.

Feature Group: Staff Guest Management

Like case workers, St. Anthony's staff members need to be able to manage guest appointments as well as manage guests records themselves. However, staff capability requirements go beyond simply scheduling appointments and making minor changes to guest records: Staff need to be able to search for and find guest records, to edit additional details of guest records (such as their scheduling horizon, as some guests may be able to schedule more or less than 2 weeks in advance), as well as record when guests have shown up to their appointments.

The exact editable fields have not been fully identified yet. For example, should staff be able to manually override a guest's "next eligible" date, or will that ability be reserved for administrators? Regardless of which fields are editable and which are "read only" for staff, all this guest information will need to integrate with ETO.

Feature Group: Staff Daily Dashboard

Related to guest management features, but somewhat distinct, St. Anthony's staff need a "dashboard" interface providing an easy visual rundown of a given day's schedule, so they have an easy way to understand which guests to expect, as well as providing the ability to log guest activity, such as flagging when guests arrive or check out, acquire special items like shoes or jackets, or fail to appear for an appointment.

Because it will modify guest records, this interface needs to integrate with ETO, though the extent to which ETO itself can be leveraged (i.e. can the system open ETO's touchpoint feature, or will it need to offer its own UI that then pass information to ETO?) is still to be determined.

Note the layout, exact requirements, and user flow of this dashboard is still to be determined.

Feature Group: Administrator dashboard

While staff providing services to guests need to be able to manage guest appointments and log guest activity, we recommend an elevated "administrator" role be created for senior-level St. Anthony's staff. This administrator role would have full access to edit all aspects of a guest's record, including eligibility dates, status, guest type, etc., rather than just the few fields staff would be able to edit.

Beyond additional capabilities regarding guests, however, administrators also need to be able to create, view, and manage case worker accounts with full visibility and editability.

Administrators also need to be able to build and maintain the "available appointments" system, indicating which appointment slots exist for which guest types at which times. While these slots are typically consistent from week to week and may not require constant changes, variations due to holidays and other factors are inevitable. Thus, administrators need to be able to designate how long an appointment slot is for, which guest types are allowed to book it (individual or family, male or female, etc.) and which user types are allowed to book it (just guests, guests and case workers, just staff, etc.).

The user-interface for this dashboard has not yet been visualized, so it is not reflected in the prototype. Due to its complexity and the nature of the tasks associated with this dashboard, we recommend this functionality be implemented with desktop or laptop computer users in mind, rather than focusing on mobile.

Other Considerations, Recommendations, and Unknowns

This document has attempted to outline in broad strokes the general requirements for a scheduling system appropriate for St. Anthony's and the guests it serves. However, it is not exhaustive: as mentioned, some requirements and components of this platform have not been as fully thought-through as others. Examples of aspects where significant uncertainty still lies include, but are not limited to:

1. The exact structure of guest records and how they are maintained in this system as well as ETO
2. What aspects of a guest record a staff member can edit
3. How the user interface for the staff and administrator roles will look and work
4. How case workers and guests are connected to one another, particularly when a guest may have multiple case workers
5. What text-messaging platform could be integrated with to provided the recommended texting capabilities
6. How text-based rescheduling might function. We think this should be a standalone project, with its own Technical Discovery. See page 10 for more information.
7. Ongoing maintenance and troubleshooting of the system once in use. See page 10 for more information.

Projected Budget for Known Functionality

The following table provides a detailed breakdown of project steps, and notes low and high hour estimates for each task (with the exception of those listed on the bottom of page 8). These estimates will be refined as we get more clarity about the design simplicity or complexity, and as you provide final-product quiz logic, and database search logic.

This project includes several complex functional elements that will require careful scoping. Because of these, we propose a time & materials contract with a ceiling, where we monitor the project burn rate and iterate through the development of functionality, rather than a typical fixed bid approach.

We provide the following preliminary budget in the spirit of transparency and to give you a sense of our thinking. However, we cannot be sure that the project will follow this budget — some line items may take more or less time to complete as we fully define the necessary functionality. Thus, this budget is preliminary, not final.

Activity	Low Hours	High Hours	Low Budget	High Budget
Creative Discovery				
Style Tile				
Wireframe Development				
Design Mockups				
Functional Roadmap				
Initial development setup				
Efforts to Outcomes integration				
Azure active directory integration for staff				
Text service integration w/simple confirm/cancel				
Email service integration				
Network-aware Print integration				
Appointment scheduling front-end				
Appointment back-end				
Appointment slot management UI for administrators				
Appointment management front-end				
Case worker guest management front end				
Staff guest management front-end				
Admin management of accounts, etc.				

Activity	Low Hours	High Hours	Low Budget	High Budget
Reports for staff				
Case worker controls for staff/admin				
Testing & Quality Assurance				
Site Refinements				
System Investigation				
Launch				
Training & Documentation				
Technical Lead Oversight				
Project Management				
Total				

Additional Considerations

These additional options are described in detail below. Support Plans assume we build your site on WordPress. We'll discuss other support options if we build on a different platform.

Activity	Hours	Budget
Text service integration w/simple reschedule-via-text		
Basic Support, 1 year		
Complete Support, 1 year		
Complete Support + Hosting Support, 1 year		

Text service integration w/simple reschedule-via-text

While rescheduling and two-directional texts are both simple in concept, they're deceivingly complex, and when you combine them, they're even more complex. It appears that the service we're considering for one-directional texts also handles two-directional texts, but the complexity of rescheduling appointments implies we may need to deal with text-based back & forth, where St. Anthony's and customers respond over and over to one another, each response potentially making changes in the scheduling tool. Rather than making lots of assumptions here, we suggest breaking this out as a completely separate mini-project, complete with it's own technical requirements phase, wireframes, roadmap, and development.

Post-Launch Maintenance & Support

We offer several maintenance & support options for your new system:

- If the tool breaks as a result of problems with your host, hacking, user error, or third-party code changes, we will fix the problem at our task-by-task maintenance rate of $175/hour.
- **Basic WordPress Maintenance Plan — [redacted]**
    - Weekly updates to WordPress Core and plugins (the most common hacking vectors on a WordPress site)
    - Homepage Visual Comparison Monitoring to better track any variations caused by plugin updates
    - Automated security scans
    - Weekly offsite backups
    - Uptime monitoring and notifications when your site goes down (including support communication and troubleshooting as needed)
    - Regular checks for links on your site that have become broken
- **Complete WordPress Support & Maintenance — [redacted]**
    - All of the above from the Basic Maintenance plan
    - Assessment of hacking or spam code, within limits (Additional estimates may be needed, depending on the complexity of the case.)
    - Visual Comparison Monitoring on homepage and two additional pages to better track any variations caused by plugin updates
    - Support for Fast Tasks from our Cornershop Team
    - Discounted Development Rates ([redacted]/hour, instead of our standard maintenance rate of [redacted]/hour) for anything outside the scope of a Fast Task

      What's a Fast Task, you wonder?
        - Initial troubleshooting and investigation of new issues (30 minutes or less)
        - Quick adjustments to content, images, alignment, styles, etc. (Anything that doesn't require a substantial code change.)
        - Installation of new plugins (though configuration cost may be additional)
        - If, after our initial investigation, we find that a task is definitely going to take more than an hour to properly address, we'll provide an estimate of what work needs to be done. After you approve the additional hours, we'll proceed at a discounted development rate of $150/hour. If we spend less time than originally anticipated, we bill the lesser amount.

- **Complete WordPress Support + Hosting Support — [redacted]/year**
- **Retainer Support**
  If you anticipate needing help with more complex maintenance (like adding content to your site, adding new features, or making layout or design changes), we recommend a separate maintenance contract along the lines of 60 hours of on-demand support over the course of the first six months of your new site. We'd

use the hours at your discretion for additional design work, perform basic website maintenance, or for additional training: whatever you need to feel really comfortable with the big, powerful new site you'll have. This 60-hour retainer would be billed at a lower project rate of [redacted]/hour, rather than our task-by-task rate of [redacted]/hour.

- **Call Us**
  If you just need to call and ask for advice, give us a ring or shoot us an email. We're not just your design and development shop — we're your friends.

Payment Terms

For a Time & Materials project like this one, we will work toward project completion and submit a bill at the end of each month for hours worked that month. We will set a ceiling amount, 20% above our estimated hours (in order to account for unexpected changes, edge cases, and unknowns), which we will not exceed. However, if these payment terms don't work for your organization, we're more than happy to craft an alternative payment schedule that meets your needs.