Tailor-Made Information Dominance

Tennessee Housing Development Agency
Management Innovation: Technology

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Background
THDA’s IT team is proactive in using technology solutions to improve business processes. Since 2012, THDA has been growing and expanding its in-house software development efforts. In general, agency technical and business staff have agreed that most boxed/vendor-provided applications do not give THDA the flexibility to let software make business processes as efficient as possible, and often require multiple third-party integrations to really work as needed for the agency. Instead, in-house, custom-made, tailored software allows for a standard look and feel, as well as standard development tools that can then be reused between systems/projects, greatly reducing development time and allowing products to be operational in a much quicker turnaround.

This uniformity across applications in both look and feel, and general functionality and features creates an opportunity for cross-training staff working primarily in specific programs. The familiarity of the interface and processes gives us the opportunity to efficiently expand the practical knowledge and exposure of our staff. This not only benefits our availability and delivery for our customer, but expands the prospects of the individual in promotion and advancement opportunities within the agency.

Behind the Curtain
In planning our in-house systems, we strive to replace multiple methods and procedures to allow for the central administration and control of information. The consistency of processes establishes easier transition, training and maintenance for all involved. Communication between our staff and customers is reliably tracked and available for reference and reporting. This benefits not only the agency, but the customer. Specifically, we have established a creative way to free up staff time by allowing customers to manage their entity’s account information and access. We generally assign a ‘manager’ for each account that has the ability to update and make changes to user access, as well as names, emails and addresses. They have the ability to invite additional users and control their access to the account. Our in-house account administrator maintains oversight and review for consistency and content, but we have found this unique flexibility in our tailor-made software cuts down on phone calls and emails to staff, allowing them to focus on doing their job rather than resetting passwords or activating and deactivating users.

When working with the level and amount of private information we have, security is very important in this type of software. Since THDA builds the software from the ground up, we can plan for security from the very beginning and not have it as an afterthought. We are able to test the software through every phase of development and use secure devops standards. This allows us to be very proactive and not reactive when it comes to security. THDA hosts all of our own systems also allowing us the ability to continue testing once they are in a production environment. This also allows us to move very quickly if we do find a problem or have a patch to be applied without have to worry about third party vendors and weeks or months of delays due to someone else’s schedule and determination if there is a problem. The level of teamwork that is required by the security team and development team is high and requires a lot of open communication, but in the end, it makes the customer experience one that is not only productive but secure.
In some divisions in particular, Multifamily Development, Community Program and Single Family Special Programs, manual processes, spreadsheets and paper applications have been used for years and are now online, allowing the agency to capture much more data than ever before. This enhances reporting and allows for analytics and research to inform future programs, success/failures, etc. Additionally, by having all business processes online, from an application through to completion/payment/closing, provides for a collaborative environment for the external user –the lender, the grant administrator, the non-profit, or the homeowner.

THDA has successfully built and launched enterprise business applications for the following divisions within the agency, their overview and benefits described below.

- Single Family Loan Operations: THELMA, HBEI Manager
- Single Family Special Programs: LOUISE
- Multifamily Development: THOMAS
- Executive: PIMS
- Accounting: ATLAS
- Community Programs: GMS

Additionally, for federally funded, THDA administered, Weatherization Assistance Program software, WAPEZ, THDA strategically partnered with local organizations to build a system used by service providers and participants alike.

**On Stage**

**THELMA** – an all-encompassing system from the Loan Originator Portal to in-house underwriting and closing. There is no need for third-party applications for document management that many other HFA’s are having to implement in addition to their costly boxed LOS systems. This system provides for end-to-end workflow which allows staff and lenders to monitor the complete flow of a loan submission from beginning to end, allowing for ease of identification and elimination of errors or issues that might otherwise lengthen the process. Overall, the system has improved the efficiency of underwriting time. Prior to THELMA, underwriting reviewed a maximum of five files a day. After THELMA, this has increased to at least seven. Additional features include a built-in calculator for income calculation and the notification function that allows a business to provide guide changes and interest rate information directly to every loan officer, processor or closer that is setup in the system. In fact, the system is so flexible it has allowed us to be ready months in advance for exchanging file delivery formats with partners like Freddie Mac and Fannie Mae.

**HBEI Manager** – streamlines work tasks for the Homebuyer Education Team. This system houses information about network agencies and counselors, including their contact information, certifications & required continuing education hours. The HBEI Online external portal provides a way for the network members to submit electronic material orders and electronically confirm their customers for monthly payment reports, as well as, submit upcoming class schedules. Additionally, with recent additions and enhancements, THDA can now use this system as their HUD-required Client Management system, allowing THDA HUD Counselors to record demographic and counseling measures and notes that meet HUD Housing Counseling guidelines.

**LOUISE** – automates processes in the file review process making the process more operative, accurate, and efficient. LOUISE reduces the time it takes to review loans and track production, so much so that the agency was able to reduce the size of the division, re-allocating funds to program dollars rather than salaries and administrative overhead.
THOMAS – the Tennessee Housing Online Management Application System (THOMAS) is now in its second year. The system has increased efficiency with an internal dashboard for both Competitive Low Income Housing Tax Credits (LIHTC) and Multifamily Tax-Exempt Bond Authority (MTBA) programs. Previously, allocation coordinators relied on a CD-ROM of hard copy attachments to perform file reviews. The time spent uploading the disk and collecting replacement attachments through email made file reviews a tedious process and created limited accessibility to all the necessary information.

As a result of THOMAS, the entire application and the result of subsequent review cycles can be found in the portal. The entire team has read only privileges to review all document submissions, application information, results of THDA reviews, financial feasibility reviews, and application notes all in one place. Application coordinators are able to work more efficiently and spend more time on critical analysis of market studies, appraisals, capital needs assessments and cash flow analysis for each development.

In the first year of THOMAS, the automated ranking feature for the competitive LIHTC was able to produce the ranking in minutes after the final review notice process with 100% accuracy rather than a two day manual excel process.

PIMS – provides consistency in access to commonly-required supporting documentation for customers that expect to apply for multiple opportunities across agency divisions. Within PIMS, we have established threshold requirements, which must be submitted, reviewed and accepted prior to the customer accessing an electronic application for funding through THDA. This allows our staff to review and establish general acceptance criteria, which may not previously have been identified until post-submission of application.

ATLAS – allows for large batches of payments from multiple THDA business units to process through one central application used by the Accounts Payable Team. It has helped the Accounts Payable Team by notifying other THDA divisions if vendors are setup prior to payment processing and by reducing the amount of time Accounts Payable spends on payment reconciliations. Similarly, it has made the payment review and approval process for business units easier. The built-in reports make it easy to review and track what was submitted, who requested payment, and who approved each payment.

GMS - reduces the time required to fill out and turn in grant applications by grant seekers. In many cases, the grant administrators doing the actual work on the grant application can be up to 4 hours away from the grantee’s physical location. With the old process, the administrator would have to drive to get original signatures, sometime multiple times during the process from the grantee. With the convenience of electronic signatures that burden was completely removed.

For internal THDA staff, the system eliminates the need for physically looking through 100’s of pages of printed documentation for a document to easy access with in-screen navigation. The application scoring criteria is included in the business logic, as well, prepopulating much of the scoring and greatly reducing the time needed to score an application. This also improves accuracy and consistency in the scoring process. Lastly, it makes it possible for more than one person to work on an application at a time. This greatly reduces the total time needed to score an entire body of applications.

WAPez – a centralized, end-to-end system allows for THDA to have greater insight into the implementation of Weatherization services across the state. THDA can track applications, job statuses and provide technical assistance at any time. WAPez has increased our Weatherization capacity as a state and has led to local administrators saving time and increasing production.
Screenshots

LOUISE – Internal Dashboard

![THDA SP Management Portal](image-url)
THOMAS - Internal Management Dashboard

THOMAS - External Landing Page

THOMAS – Internal Ranking – Competitive LIHTC
GMS – Internal Program Screen

GMS – External User Management Screen