



Where it all Began...

- Loan Origination System Replacement
 - 20+ year old system
 - RFP versus in-house custom software
 - Shout-out to NCHFA!
 - THELMA is born
 - Workflow based
 - Dashboards
 - Online Lender Portal for completely digital submissions
 - Fully integrated document management
 - Lessons learned



The Trend Catches On

- THOMAS
- LOUISE
- ATLAS
- GMS
- HBEI/HUD CMS



Standardization/Repeatability

- General look/feel/navigation
- Document Uploads
- Email and Document Services
- Dashboards
- Custom Functionality (ex. Tokenzied emails to mayors or accountants)



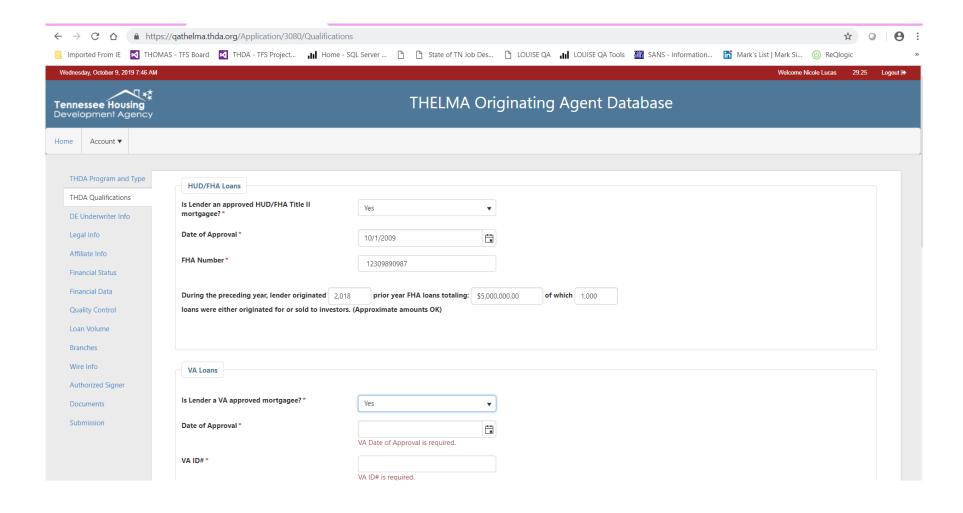
Benefits

- Standard technology
 - CSS/Styling
 - Telerik Controls
 - AD-Integrated/Single Sign On
- Less Peripheral Software/3rd Party Systems
 - Document Management
 - Workflows
 - Electronic Signatures
- Seamless customer experience, both internal and external
- Quicker to add new programs or modify business processes



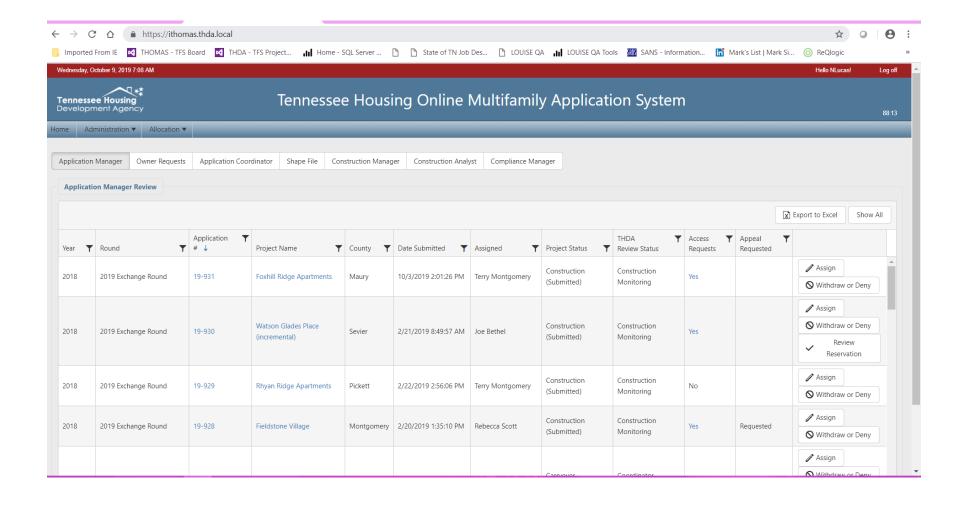


THELMA (External User)



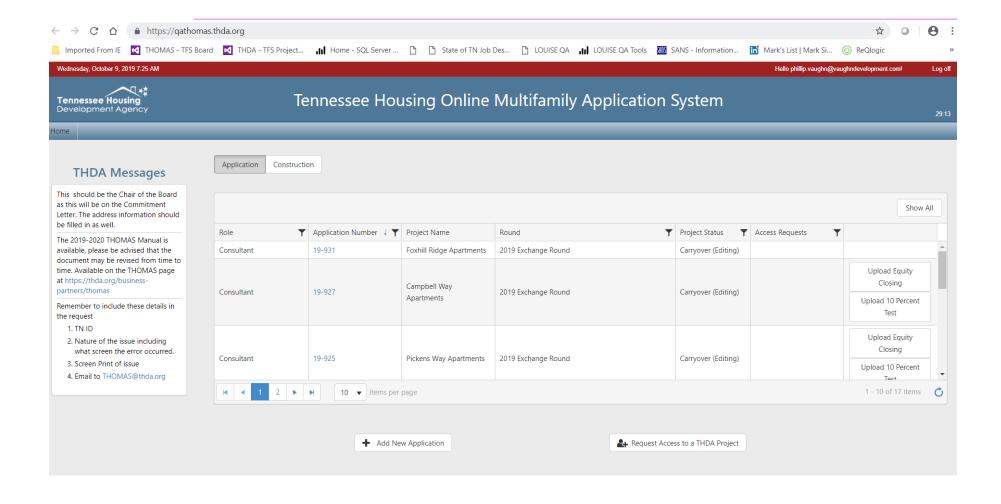


THOMAS (Internal User)





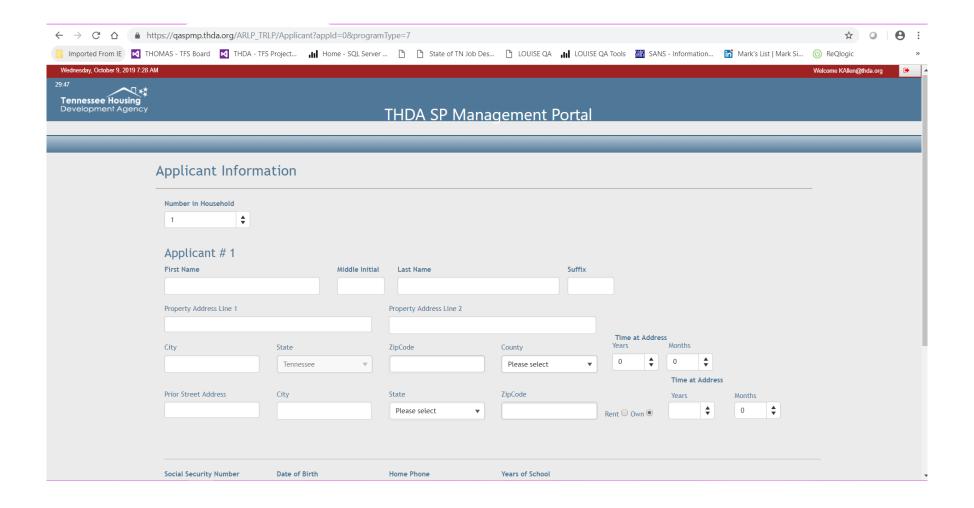
THOMAS (External User)





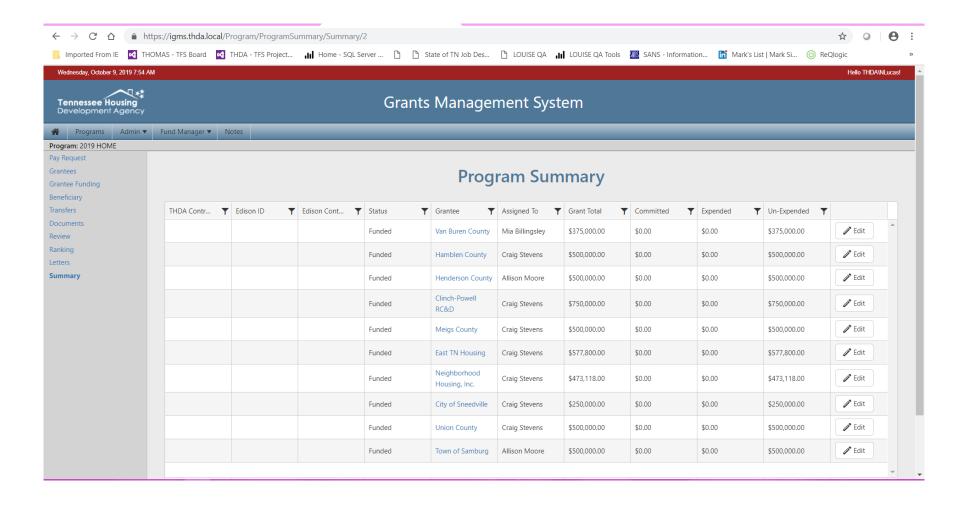


LOUISE (External User)





GMS (Internal User)





Developed Applications Matrix

⊿ A	В	C	D	E	F	G
1	THDA IN-HOUSE DEVELOPED APPLICATION LIST					
2	Application	Function	Code-Base/Framework	Other Languages Used	Years in Use	Maintenanc Frequency
3 3	FSS_Homeownership	External portal for FSS/S8toHomeownership applications	C#, MVC, Entity Framework, .NET Framework 4.5, Telerik MVC	Javascript, Jquery	5	Annually
4	Logging	Logs all critical errors when encountered on any web-based application	C#, Web Forms, Entity Framework, .NET Framework 4.0		2	Annually
5 5	Acceptable Use Policy/Policies	Interactive web-page used for Annual employee acceptance (and new hires) of agency's co	C#, MVC, Entity Framework, .NET Framework 4.5.2	Javascript, jQuery	6	Annually
6 15	Grants CRM	Manage and track all grant-related activities and draw requests	Dynamics CRM	Javascript	6	Annually
7 23	SFSP Pre-Eligibility	Principal Reduction Program data collection web portal for pre-eligibilty (generates logins f	C#, MVC, Entity Framework, .NET Framework 4.5.2	Javascript, jQuery	New	Annually
8 29	Outreach Tracking	Built on Microsoft CRM platform to track contact information and meeting dates for the C	Dynamics CRM	Javascript	2	Annually
9	Events Tracking	Used by Public Affairs to track all external events THDA might need to know about, staff, page 1	C#, Web Forms, Entity Framework, .NET Framework 4.0, Telerik A	Javascript, Jquery	6	Infrequent
10	NFMC	Foreclosure Mitigation Counseling data collection web portal	VB.NET, Web Forms, ADO.NET, .NET Framework 4.0		4	Infrequent
11 (Operations PM	In-house work order tracking for Operations/Facility issues	C#, Web Forms, Entity Framework, .NET Framework 4.0, Telerik A	Javascript, Jquery	5	Infrequent
12	7 S8CA Edison App	Interface used to transfer S8CA payment files to Edison for batch processing	VB.NET, WinForms, ADO.NET, .NET Framework 2.0		9	Infrequent
13 8	S8RA Edison App	Interface used to transfer S8RA payment files to Edison for batch processing	VB.NET, WinForms, ADO.NET, .NET Framework 2.0		9	Infrequent
14	THDA Core	Contains THDA-specific variables and constants for all in-house developed software (i.e. from	C#, .NET Framework 4.0		4	Infrequent
15 10	THDA Core BusinessObjects	Contains THDA-specific variables and constants for all in-house developed software (i.e. from	C#, .NET Framework 4.0		4	Infrequent
16 13	THDA Data	Contains THDA-specific variables and constants for all in-house developed software (i.e. from	C#, Entity Framework, .NET Framework 4.0		4	Infrequent
17 12	ASP.NET Membership	Collection of code for role-based security implementation within in-house applications	C#, Web Forms, Entity Framework, .NET Framework 4.0	Javascript, Jquery	3	Infrequent
18 13	B HBEI Manager	In-house work tracking clients and agency information	C#, ASP.NET MVC, .NET Framwork 4.51	Javascript, Jquery	1	Infrequent
19 14	HBEI Online	External system for material ordering by external agencies	C#, ASP.NET MVC, .NET Framwork 4.51	Javascript, Jquery	New	Infrequent
20 16	THDA Utility Apps	Landing Page for all in-house developed utilties and THDA applications	C#, Web Forms, Entity Framework, .NET Framework 4.0	Javascript, Jquery	5	Monthly
21 17	Loan Origination System/THELMA	Orignate MRB and MCC Loans from OA (Lender) Submission to Purchase; External Portal a	C#, MVC, Web API, .NET Framework 4.5, Durandal, RequireJS, Kno	Javascript, Jquery	1	Ongoing
22 18	SFSP Application System/LOUISE	Accept grant applications from outside users; process applications from underwriting throu	C#, MVC, Web API, .NET Framework 4.5, Angular, RequireJS, Knocl	Javascript, Jquery	New	Ongoing
23 20	Fund Control System	Manage and track all bond allocations in relation to loan reservations/purchases	C#, MVC, Entity Framework, .NET Framework 4.5, Telerik MVC	Javascript, Jquery, Knockout	1	Ongoing
24 2:	Authority Online/HCMS	Online LITHC Applications, Annual Tenant and Owner Recertification System	VB.NET, Web Forms, WinForms, WCF, .NET Framework 4.0, Infrag	Javascript, Jquery	4	Ongoing
25 22	PIMS	Agency wide document upload to Sharepoint. Forms Authentication.	C#, MVC, Entity Framework, .NET Framework 4.5.2	Javascript, jQuery	New	Ongoing
28 26	SF Internet Pages	Displays THDA's Lenders. Realtors. and REO's	HTML. Javascript Libraries. Web API. Entity Framework		New	Ongoing



What's Next?

- Continuous Deployment/DevOPS
- New Modules for THOMAS and GMS
- Re-Write of THELMA (Internal)
- Replacement of Older System (5+ years or older)
- Increased staffing, less dependence on contractors



Questions?