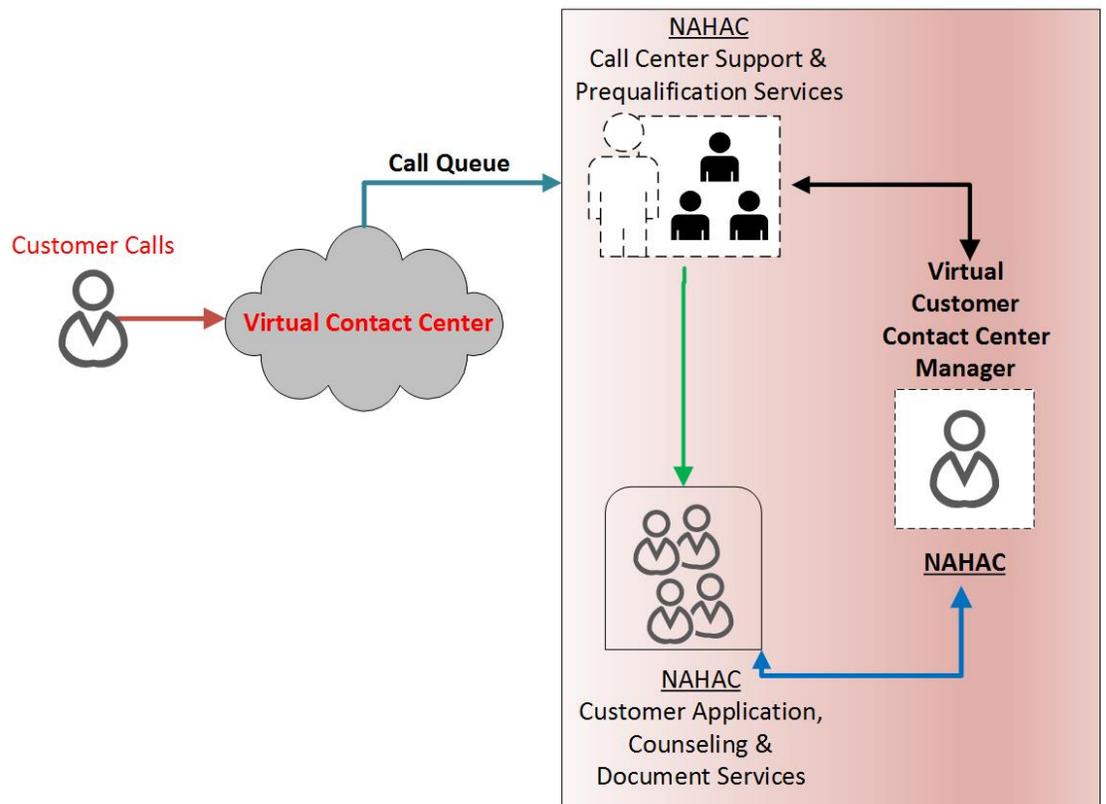


5/23/2017

Nevada Affordable Housing Assistance Corporation

Front-end Process - Cost Analysis



Customer Contact Center

Front-end Processing Cost Analysis

Background

The Nevada Affordable Housing Assistance Corporation (NAHAC) is the "Eligible Entity" pursuant to the HFA Participation Agreement entered into by the United States Department of Treasury, the Nevada Housing Division (NHD) and NAHAC to provide foreclosure prevention services, implementing the Hardest Hit Funds Program® (HHF).

The primary goal of NAHAC, is to disseminate the remaining Treasury allocations (approximately \$85 million) by December 31, 2020, which marks the end of the HHF Program. A major step in reaching this goal is to make more Nevada homeowners aware of the HHF program's existence so that more homeowners will apply for program funding. In general, this awareness process can be accomplished by the introduction of any number of marketing methods such as television advertising, community outreach, press releases, etc.

NAHAC currently utilizes disjoint automated software applications and service providers to accomplish its mission. These systems and providers include the following:

<u>System</u>	<u>Software or Application</u>	<u>Hosting Location</u>
Office email system	Microsoft Office 365	Microsoft Cloud Server
Office software systems MS Word, MS Excel, etc)	Microsoft Office 2010	On-premise (Terminal Server)
Office file system	NA	On-premise storage
HHF Homeowner document management	DMS	Virtual Server
Homeowner contact management	Credit.org (in-house system)	Credit.org
NAHAC website	Website Builder	Hosted on Go Daddy server

Currently, there are changes taking place to the NAHAC Information Technology (IT) environment which will greatly assist NAHAC in accomplishing its mission while allowing NAHAC to benefit from increased staff efficiency and team collaboration.

In February 2017, NAHAC received approval from its Board of Directors to move forward with the development of the Nevada Mortgage Assistance System (NMAS). NMAS will automate the end-to-end workflow process that is currently used by NAHAC to qualify homeowners, counsel homeowners, collect homeowner documents, process homeowner applications, and award or deny funding based on NAHAC program criteria. NMAS is currently under development with a targeted release date for Phase 1 of the project scheduled for early June 2017.

Customer Contact Center

Front-end Processing Cost Analysis

NAHAC is also in the process of combining its office software and file systems with its office email system as a part of NAHAC's Microsoft Office 365 cloud-based office environment.

The NAHAC public website is in the process of being redesigned as a part of NAHAC's efforts to increase its customer base by means of a consolidated marketing effort.

Along with the development of NMAS, NAHAC is considering making modifications to the front-end work flow sub-processes (which includes triage, counseling/applications and document collection/processing) to reduce costs, improve efficiencies and to create an environment of collaboration between NAHAC staff and partner organizations.

NAHAC's near future IT environment will consist of the following systems and providers:

<u>System</u>	<u>Software or Application</u>	<u>Hosting Location</u>
Office software & file systems	Microsoft Office 365 (SharePoint, MS Word, MS Excel, etc)	Microsoft Cloud Server
HHF Homeowner document management & automated workflow system	NMAS	Rackspace Virtual Server environment
Homeowner contact management system	Clarity Connect	Cloud-based environment
NAHAC public website	NA	BRAINTRUST virtual server environment

NAHAC will integrate portions of these systems where possible to streamline its operation and increase staff productivity.

Customer Contact Center

Front-end Processing Cost Analysis

Current Front-end Processing Environment

To manage its funding allocations and accomplish its primary goal, NAHAC has implemented a front-end workflow process that begins with the initial call from a Nevada homeowner via an 800 number to the credit.org call center or face-to-face homeowner intake sessions with licensed Housing and Urban Development Housing Counseling Agencies (HCAs). The front-end workflow process ends when credit.org or an HCA electronically transfers a homeowner’s file to NAHAC for processing.

NAHAC has contracted with credit.org to provide services to homeowners on behalf of NAHAC via homeowner telephone calls to the credit.org call center facility. As a NAHAC vendor, credit.org is contracted to provide homeowner services which include answering homeowner general questions, conducting homeowner Triage (initial questionnaire to see if a homeowner may qualify for funding under one of the NAHAC programs), homeowner application processing for qualified homeowners, and providing document collection and processing services (see Table 1).

Credit.org Contracted Services

Services	Description	Rates
Call Center Support	<ol style="list-style-type: none"> 1. Receive and support incoming calls to NAHAC client services phone number, XXX-XXX-XXX 2. Answer questions and/or route calls accordingly. 3. Offer clients self-assessments 4. Perform Self-Assessment for each client calling NAHAC hotline to assess pass/fail for preliminary eligibility. 5. Register clients as applicable. 	<ol style="list-style-type: none"> 1) \$1,500 for 200 calls per month (fee includes customer support, self-assessments and registrations). 2) For calls in excess of 200 per month, \$7.00 per Self Assessments and \$2.00 per Registration.
Client Application	<ol style="list-style-type: none"> 1. Offer and complete NAHAC on-line application, as applicable. 	<ol style="list-style-type: none"> 1) \$3,000 for 55 completed applications per month. 2) For completed applications in excess of 55 per month, \$67.50 per Completed Application.
Housing Counseling	<ol style="list-style-type: none"> 1. Offer and perform NFMC Foreclosure Prevention Housing counseling, as applicable. Springboard shall be the designated Housing Counseling Agency for all NAHAC files processed by Springboard. 	No charge.

Customer Contact Center Front-end Processing Cost Analysis

Credit.org Contracted Services (continued)

Document Collection & Processing	<ol style="list-style-type: none"> 1. Facilitate receipt of NAHAC’s initial required client document package. (Exhibit A). <ol style="list-style-type: none"> a. Perform welcome call and program overview to client. b. Answer client questions and perform, as needed, several client follow up telephone calls and email communications for incomplete, incorrect or outstanding documents. 2. Complete Pre-Eligibility Checklist. 3. For inactive or unresponsive clients, enable up to 3 out-bound calls and/or email follow up attempts per client within 15 days of application complete date. 4. Initiate file closure as incomplete or withdraw status at: <ol style="list-style-type: none"> a. Clients verbal or written request; b. No contact, response or client activity within 7 business days of requests and/or messages to submit documentation. 5. Update applicable system information and notes relative to work performed. 6. Prepare eligibility check list (exhibit B, TBD) for completed client document packages. 7. Submit completed document and eligibility check list to NAHAC (via secure protocols) 	<p>\$150.00 per completed file. When the file is 75% complete, 75% of the fee in the amount of \$112.50 will be paid. The remainder of the fee, \$37.50, will be paid when 100% of requested documents and data are received.</p> <p>A file is deemed 75% complete when the documents and data identified on Schedule A-1 to this Exhibit A are received and in the file.</p>
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Table 1

As a NAHAC vendor, HCAs provide similar services to that of credit.org on behalf of NAHAC but provide these services in conjunction with other (non-NAHAC) program offerings. The HCAs are currently working under a contract that provides compensation to HCA organizations for providing services to homeowners under a 3-Tier service structure (see Figure 1). A maximum compensation of \$400 can be earned by an HCA for providing completed services to a single homeowner under all 3 tiers.

Customer Contact Center Front-end Processing Cost Analysis

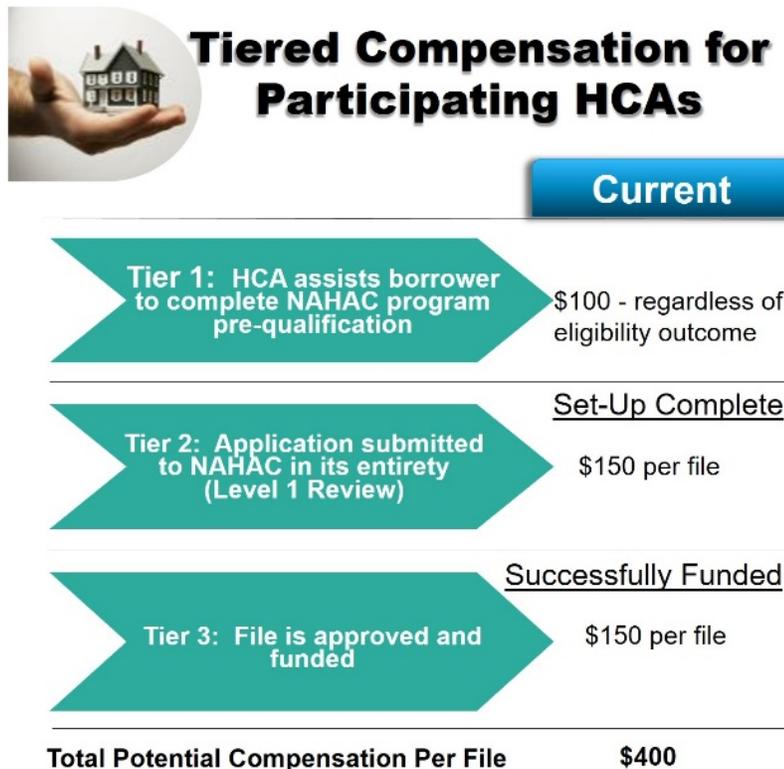


Figure 1

Problem Statement

There are multiple problems with the current method by which NAHAC vendors provide their front-end processing services to homeowners on behalf of NAHAC. These problems include:

- Under the current NAHAC Document Management System (DMS), the NAHAC costs for credit.org services are continuing to climb (see Chart 1). For a 3-month period between February 2017 and April 2017 the monthly costs for credit.org services have averaged \$26,751. The average monthly charge for the Document Collection & Processing Services alone across this 3-month period is \$16,581. Under the current agreement with credit.org, these costs continue to climb and with the deployment of NMAS and the implementation of a comprehensive marketing plan, it is expected that the monthly cost for these frontend processing services could exceed \$98,000 by the end of the HHF Program.
- The services provided by the HCA's on behalf of NAHAC are usually conducted during face-to-face sessions with homeowners. Although conducting these services via face-to-face sessions is very helpful to the homeowners, it slows NAHAC's front-end workflow process tremendously which results in longer lead times for NAHAC to receive the homeowner files so that it can begin processing. Additionally, HCAs have less resources than credit.org and therefore process a much smaller volume of homeowner files.

Customer Contact Center Front-end Processing Cost Analysis

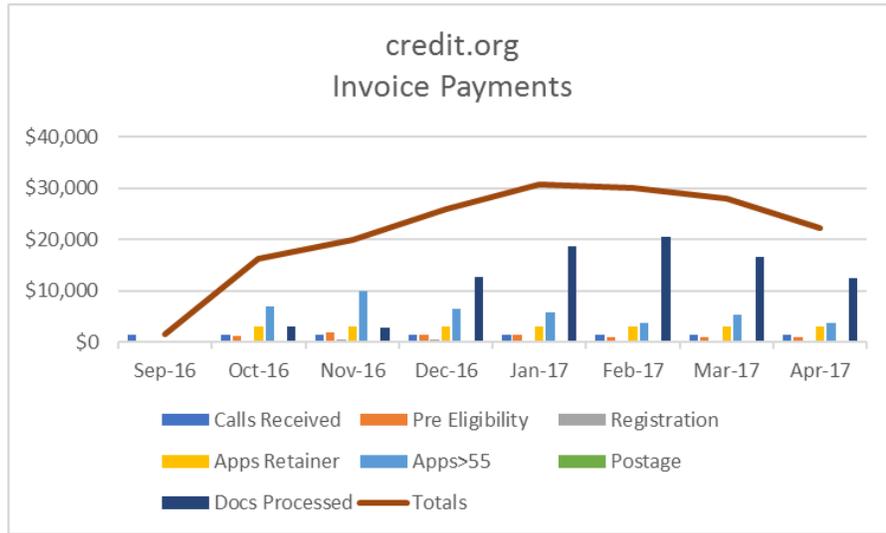


Chart 1

- The services provided by the HCAs on behalf of NAHAC are usually conducted during face-to-face sessions with homeowners. Although conducting these services via face-to-face sessions is very helpful to the homeowners, it slows NAHAC’s front-end workflow process tremendously which results in longer lead times for NAHAC to receive the homeowner files so that it can begin processing. Additionally, HCAs have less resources than credit.org and therefore process a much smaller volume of homeowner files.
- NAHAC management is responsible for controlling the costs as it relates to the contracted services that the vendors of the front-end processing service provide. NAHAC has no means of collecting real-time data from vendors to verify what quantity of services (for example how many calls are coming into the credit.org call center) that NAHAC is paying for. Although NAHAC does receive vendor provided call center reports, it is not possible for NAHAC to verify the call data statistics.
- It is not possible for NAHAC to monitor the quality of the conversations being conducted between the front-end processing vendor representatives and the homeowners. The ability to monitor calls is one of the basic capabilities required by the managers of customer contact center systems.
- NAHAC has been criticized for outsourcing front-end processing services to a vendor outside of Nevada.

Customer Contact Center Front-end Processing Cost Analysis

The Solution

To address the rising costs of and lack of control over front-end processing, it appears to be more cost effective for NAHAC to bring all front-end processing services, including the homeowner prequalification services, the homeowner intake processing services, and the document collection and processing services in-house. To accomplish this NAHAC will require the addition of customer contact center staff and an automated system to assist in managing the customer contact environment.

The following analysis compares the costs associated with leaving the current front-end processes in place versus NAHAC bringing these services in-house.

The Analysis Baseline

Based on NAHAC funding goals, it is projected that funding allocations will be exhausted by November 2019. This analysis will include front-end cost projections covering a 29-month period (July 2017 – November 2019) (see Table 2).

		Baseline Projected Funding Goals												
		Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018
Baseline Funding Goals		\$1,000,000	\$1,125,000	\$1,250,000	\$1,750,000	\$2,000,000	\$2,125,000	\$2,250,000	\$2,500,000	\$2,750,000	\$3,000,000	\$3,125,000	\$3,250,000	\$3,250,000

		Baseline Projected Funding Goals																
		Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	Nov-2019	29-month total
Baseline Funding Goals		\$3,250,000	\$3,250,000	\$3,250,000	\$3,250,000	\$3,250,000	\$3,250,000	\$3,250,000	\$3,250,000	\$3,250,000	\$3,250,000	\$3,250,000	\$3,250,000	\$3,250,000	\$3,250,000	\$3,250,000	\$2,235,174	\$80,360,174

Table 2

To calculate the current costs of front-end processing services, this analysis had to project the number of calls that would be received by the NAHAC vendor’s customer call center, the number of applications processed by vendors, and the number of homeowner files (consisting of document collections) that would be transferred by the vendors to NAHAC for processing (see Table 3), all based on the established NAHAC funding goals identified in Table 2. Actual data for a 3-month period from Feb 2017 thru April 2017 plus the projected data for May 2017 and June 2017 were used to project the values for each of these categories as a part of this analysis.

In order identify the number of NAHAC call center support staff required for NAHAC front-end processing, the analysis had to project the total calls that would be received by credit.org over the 29-month analysis time period. The total number of calls answered by credit.org for a 3-month period from Feb 2017 thru April 2017 plus the projected data for May 2017 and June 2017 were used as a basis for this projection. It should be noted that NAHAC has implemented a pre-qualification questionnaire on its public website which is aimed at reducing the number of calls into the NAHAC call center by homeowners who will disqualify themselves based on answering the pre-qualification questions. It is estimated that this will reduce the number of calls coming into the NAHAC call center by 10%.

Customer Contact Center Front-end Processing Cost Analysis

Customer Contact Center Front-end Processing Cost Analysis

Baseline Projected Count of Files Funded, Applications Processed, New Calls Received & Total Calls Received													
	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018
Projected Count of Files Funded (Totals)	28	31	34	48	55	59	62	69	76	83	86	90	90
Projected Count of Files Processed (Totals)	241	241	241	308	322	316	311	323	333	342	337	332	332
Projected Count of New Calls Received by credit.org (Totals)	732	824	916	1,282	1,465	1,556	1,648	1,831	2,014	2,197	2,289	2,380	2,380
Projected Count of Total Calls Received by credit.org (reduced by 10%)	1,347	1,516	1,684	2,358	2,694	2,863	3,031	3,368	3,705	4,041	4,210	4,378	4,378

Baseline Projected Count of Files Funded, Applications Processed, New Calls Received & Total Calls Received																	
	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	Nov-2019	28-month totals
Projected Count of Files Funded (Totals)	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	62	2,217
Projected Count of Files Processed (Totals)	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	228	9,191
Projected Count of New Calls Received by credit.org (Totals)	2,380	2,380	2,380	2,380	2,380	2,380	2,380	2,380	2,380	2,380	2,380	2,380	2,380	2,380	2,380	1,637	58,856
Projected Count of Total Calls Received by credit.org (reduced by 10%)	4,378	4,378	4,378	4,378	4,378	4,378	4,378	4,378	4,378	4,378	4,378	4,378	4,378	4,378	4,378	3,011	108,259

Table 3

Customer Contact Center Front-end Processing Cost Analysis

Front-end Processing Cost Projections – (Vendor Provided Services)

Under the current Statement of Work, credit.org performs and is compensated for providing three (3) of four (4) front end processing services (see Table 1). Based on the compensation criteria shown in Table 1 and the projected count of calls received and files processed shown in Table 3, we can project the monthly compensation that would be paid to credit.org over the 29-month analysis period.

Under the current 3-Tiered structure, HCAs are compensated for providing homeowner services on behalf of NAHAC. Based on the NAHAC projected funding goals and the amount of compensation earned by HCAs over a 3-month period (Feb 2017 thru April 2017), we can project the monthly compensation that would be paid to the HCAs over the 29-month analysis period. Additionally, an HCA Board has been established which will act as an interface between the HCA's and NAHAC. The cost of this Board is set at \$5,000 per HCA per year. This cost (\$30,000) has been included in the analysis in July 2017, July 2018, and July 2019.

Table 4 shows the projections for frontend processing services that would be paid to both credit.org and the HCAs for the analysis period (July 2017 thru November 2019).

Front-end Processing Support Services (vendor provided services)	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018
credit.org (Call Center Support)	\$2,984	\$3,239	\$3,494	\$4,515	\$5,025	\$5,280	\$5,536	\$6,046	\$6,556	\$7,067	\$7,322	\$7,577	\$7,577
credit.org (Client Applications)	\$10,308	\$11,686	\$13,063	\$18,574	\$21,329	\$22,706	\$24,084	\$26,839	\$29,594	\$32,349	\$33,727	\$35,105	\$35,105
credit.org (Housing Counseling)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
credit.org (Document Collection & Processing)	\$17,030	\$19,159	\$21,287	\$29,802	\$34,060	\$36,188	\$38,317	\$42,575	\$46,832	\$51,090	\$53,218	\$55,347	\$55,347
Total credit.org Costs	\$30,322	\$34,083	\$37,845	\$52,891	\$60,414	\$64,175	\$67,937	\$75,460	\$82,983	\$90,506	\$94,267	\$98,029	\$98,029
Housing Counseling Agencies Costs	\$39,977	\$11,224	\$12,471	\$17,460	\$19,954	\$21,201	\$22,449	\$24,943	\$27,437	\$29,931	\$31,179	\$32,426	\$62,426
Front-end Services Cost Totals	\$70,299	\$45,308	\$50,316	\$70,351	\$80,368	\$85,377	\$90,385	\$100,403	\$110,420	\$120,437	\$125,446	\$130,454	\$160,454

Front-end Processing Support Services (vendor provided services)	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	Nov-2019	29-month total
credit.org (Call Center Support)	\$7,577	\$7,577	\$7,577	\$7,577	\$7,577	\$7,577	\$7,577	\$7,577	\$7,577	\$7,577	\$7,577	\$7,577	\$7,577	\$7,577	\$7,577	\$5,505	\$191,376
credit.org (Client Applications)	\$35,105	\$35,105	\$35,105	\$35,105	\$35,105	\$35,105	\$35,105	\$35,105	\$35,105	\$35,105	\$35,105	\$35,105	\$35,105	\$35,105	\$35,105	\$23,921	\$864,960
credit.org (Housing Counseling)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
credit.org (Document Collection & Processing)	\$55,347	\$55,347	\$55,347	\$55,347	\$55,347	\$55,347	\$55,347	\$55,347	\$55,347	\$55,347	\$55,347	\$55,347	\$55,347	\$55,347	\$55,347	\$38,085	\$1,368,521
Total credit.org Costs	\$98,029	\$67,491	\$2,424,857														
Housing Counseling Agencies Costs	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$22,301	\$891,765
Front-end Services Cost Totals	\$130,454	\$160,454	\$130,454	\$130,454	\$130,454	\$89,791	\$3,316,622										

Table 4

Customer Contact Center

Front-end Processing Cost Analysis

Front-end Processing Cost Projections – (NAHAC in-house process)

Under this cost projection, NAHAC would bring all front-end processing services, including the homeowner prequalification services, the homeowner intake processing services, and the document collection and processing services, in-house. The Customer Contact Center Support Services that are currently provided by outside vendors would be phased out by September 2017. NAHAC would require additional temporary staff to support these services and a Customer Contact Center Supervisor as shown in Table 5. These services and staff personnel would be supported by the Clarity Connect cloud based Customer Contact Center System. The following relates to the information outlined in Table 5.

Transition Period - (Outside Vendor Front-end Processing Services)

Initially, under this plan NAHAC would bring the Document Processing Services in-house. The front-end processing services provided by credit.org would be limited to call center support and client application processing until September 2017 at which time NAHAC would bring these services in-house.

Customer Contact Center Supervisor

The position of Customer Contact Center Supervisor will not be required until September 2017 when all front-end processing services are brought in-house. From September 2017 thru November 2017, this individual may work in a dual role as a supervisor and customer call center representative until the workload requires an increased staff to provide front-end processing services.

Intake (Triage, Client Counseling & Application Processing) Temp Staff

The intake services provided by credit.org would be phased out by September 2017 at which time NAHAC staff would assume the responsibility of providing these services. Based on the call volume projections it would take between 4 to 12 staff personnel to provide these services between September 2017 and the projected end of program funding (November 2019).

NAHAC - Document Collection and Processing Temp Staff

NAHAC staff will begin providing this service in July 2017. It is estimated that it will require from 2-3 staff personnel to provide this service from July 2017 and the projected end of program funding (November 2019).

Housing Counseling Agencies Costs

With an increase in the number of Housing Counseling Agencies and changes to the HCA compensation system it is projected that the compensation to HCAs will increase during the 29-month analysis period. Additionally, an HCA Board has been established which will act as an interface between the HCA's and NAHAC. The cost of this Board is set at \$5,000 per HCA per year. This cost (\$30,000) has been included in the analysis in July 2017, July 2018, and July 2019.

Customer Contact Center

Front-end Processing Cost Analysis

Clarity Connect customer rep seats

NAHAC is seeking a flexible licensing agreement which will allow NAHAC to increase and reduce the number of Clarity Connect seats required by NAHAC based on call center staff requirements. Monthly Licensing cost will vary from 10 to 25 seats during the 29-month analysis period depending on the inclusion of HCAs in the customer contact center system. This analysis includes a non-recurring startup fee cost (\$4,900) which would occur in July 2017.

It should also be noted that within the Clarity Connect system, NAHAC will have the ability to route calls to HCA's in case of an overflow of incoming calls or weekend call center support.

Facilities Upgrade (Electrical & Low-voltage)

It is estimated that there will \$5,000 in facilities upgrade costs that will occur in July 2017 for the room that NAHAC will use as its in-house call center.

Phones

As a part of transitioning to an in-house call center, NAHAC will need to replace its antiquated office phone system. The new system will be a hosted Voice over IP phone system. This analysis includes the cost of 15 phone handsets. The purchase of these handsets should occur in August 2017.

Computers

Each NAHAC call center rep will require a computer with dual screens. For this analysis, the costs of these systems are divided in to two purchases. Six (6) systems would be procured in August 2017 and six (6) additional systems procured in January 2018.

Furniture (cubicles and chairs)

The NAHAC call center room will include seats for twelve (12) call center representatives. It is estimated that the cost of cubicles and chairs will be \$9,120 and this procurement will occur in August 2017.

Customer Contact Center Front-end Processing Cost Analysis

Front-end Processing Support Services (NAHAC In-House Solution)	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018
Transition Period (Outside Vendor Front-end Processing Services)	\$13,292	\$14,925	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Customer Contact Center Supervisor (fully burdened labor costs)	\$0	\$0	\$3,938	\$3,424	\$3,595	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122
Intake (Triage, Client Counseling & Application Processing) Temp Staff	\$0	\$0	\$15,750	\$13,696	\$21,571	\$19,517	\$27,392	\$28,762	\$26,022	\$30,131	\$35,952	\$37,664	\$35,952
NAHAC - Document Collection and Processing Temp Staff	\$7,533	\$6,848	\$7,875	\$6,848	\$7,190	\$6,506	\$10,272	\$10,786	\$9,758	\$11,299	\$10,786	\$11,299	\$10,786
Housing Counseling Agencies Costs	\$39,977	\$11,224	\$12,471	\$17,460	\$19,954	\$21,201	\$22,449	\$24,943	\$27,437	\$29,931	\$31,179	\$32,426	\$62,426
Clarity Connect customer rep seats	\$4,900	\$0	\$747	\$747	\$1,031	\$1,031	\$1,173	\$1,173	\$1,315	\$1,315	\$1,315	\$1,315	\$1,457
Facilities Upgrade (Electrical & Low-voltage)	\$5,000												
Phones		\$2,599											
Computer		\$4,500					\$4,500						
Furniture (Cubicles, Chairs)		\$9,180											
Front-end Services Cost Totals	\$70,702	\$49,276	\$40,782	\$42,175	\$53,342	\$52,377	\$69,908	\$69,785	\$68,655	\$76,799	\$83,353	\$86,826	\$114,742

Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	Nov-2019	29-month total
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,217
\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$4,122	\$109,885
\$35,952	\$39,376	\$32,528	\$37,664	\$32,528	\$41,088	\$43,142	\$39,034	\$45,197	\$45,197	\$45,197	\$41,088	\$45,197	\$45,197	\$41,088	\$45,197	\$947,078
\$10,786	\$11,813	\$9,758	\$11,299	\$9,758	\$10,272	\$10,786	\$9,758	\$11,299	\$11,299	\$11,299	\$10,272	\$11,299	\$11,299	\$10,272	\$11,299	\$290,355
\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$32,426	\$62,426	\$32,426	\$32,426	\$32,426	\$22,301	\$891,765
\$1,741	\$1,741	\$1,741	\$1,741	\$1,741	\$1,741	\$1,741	\$1,883	\$1,883	\$1,883	\$1,883	\$2,024	\$2,024	\$2,024	\$2,024	\$2,024	\$47,357
																\$5,000
																\$2,599
																\$9,000
																\$9,180
\$85,026	\$89,477	\$80,575	\$87,252	\$80,575	\$89,648	\$92,216	\$87,222	\$94,926	\$94,926	\$94,926	\$119,932	\$95,068	\$95,068	\$89,932	\$84,943	\$2,340,437

Table 5

Customer Contact Center Front-end Processing Cost Analysis

Analysis Results

The results of this analysis (see Chart 2) shows that there would be a significant monthly cost savings by NAHAC bringing the front-end processing services in-house. Over the 29-month analysis period, the cost of using vendors to provide the front-end processing services is estimated to be \$3,316,662. By bringing these services in-house it is estimated that the cost of these services will be \$2,340,437. Other benefits of bringing the front-end processing services in-house include:

- control of front-end processing costs
- call quality control
- call routing management
- call conversation archiving
- real-time call statistics

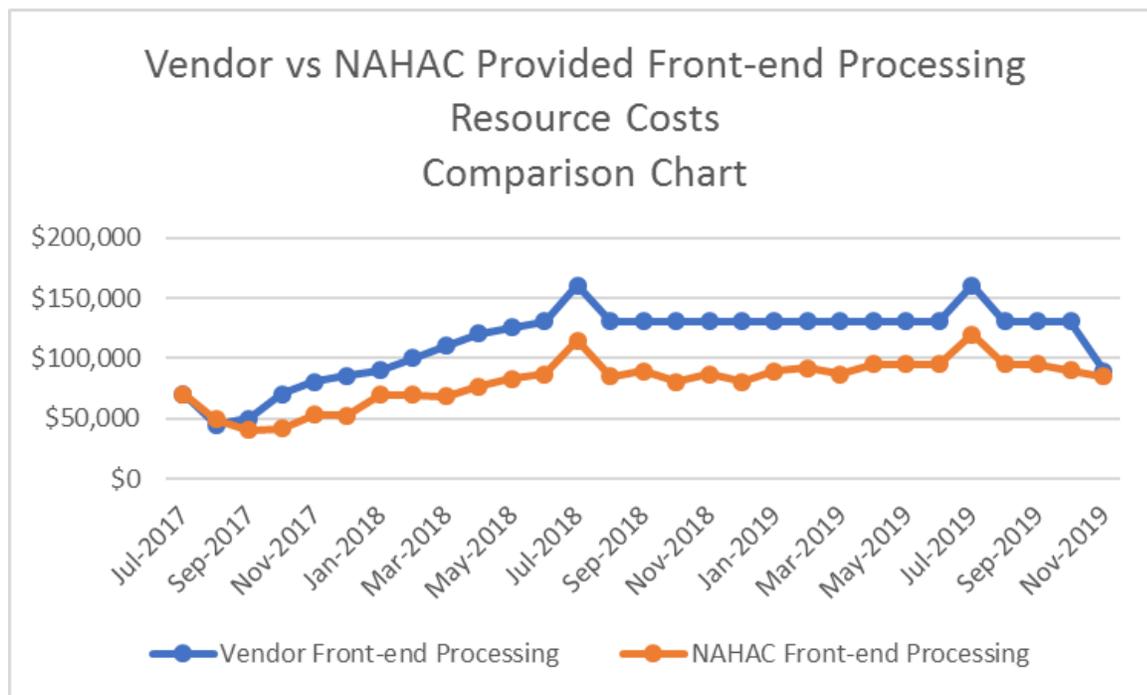


Chart 2

Customer Contact Center Features

It is recommended that NAHAC implement the Clarity Connect cloud-based Customer Contact Center System that will provide a tool that would be utilized by NAHAC staff and credit.org while interfacing with NAHAC homeowner clients.

The Clarity Connect customer contact center would provide the following features:

- **Interactive Voice Response (IVR) tools**
The Web-based visual call-flow editor allows users to create powerful and intelligent, user-experience focused flows that can process voice calls and chat sessions.

Customer Contact Center

Front-end Processing Cost Analysis

- Powerful call- and chat-flows with simple custom configuration through intuitive IVR tools
- Third-party web-based integration for intelligent routing and customer lookups
- Custom IVR attendant with speech recognition or DTMF entry and global, and queue-based calendar ruling
- Manage IM/audio through a single call flow
- **Call Routing capabilities**

Allows callers to get connected to the best available agent quickly using our automated call distributor (ACD).

 - Skills-based routing with multi-level skills per
 - Configurable queues with separate metrics and custom messaging per queue
 - Control panel for configuration of IVRs, queues, skills, agents, KPI-based alerts, and dynamic routing
 - Callback and forwarding options for calls in queue. Exit2VM and/or external transfer
- **Call recording capabilities**
 - Recording can be configured for all (compliance recording), a percentage of calls, on-demand, or none, with override at the queue or agent level
 - Direct inbound and outbound call recording for agents
- **Customer Surveying & Insight**
 - Post-call, -chat surveying supported by powerful, easy-to-use survey development tools
 - Build-out custom surveys and generate insightful reports with real impact providing a real-time feedback loop for your customers

Additionally, NAHAC will benefit from the following:

- Because NAHAC currently has approximately forty (40) Office 365 E3 non-profit licenses for its internal office systems and the recommended Customer Contact Center system is based on Office 365's Skype for Business, then internally NAHAC can leverage its current licenses without additional cost
- A NAHAC customer contact center manager can manage all representatives independent of their location. Credit.org and HCA supervisors can still supervise their individual reps.