Internal Audit Department
NeighborWorks® America

Audit Review of

HPN Launchpad Code Acquisition

Project Number: NW.HPNLCA.2020
August 5, 2021

To: NeighborWorks America Audit Committee

Subject: Audit Review of HPN Launchpad Code Acquisition

Attached is our draft audit report for HPN Launchpad Code Acquisition review. Please contact me with any questions you might have.

Thank you.

Frederick Udochi
Chief Audit Executive

Attachment

c: M. Rodriguez
   S. Ifill
   K. Esmond
   R. Simmons
   M. Huthwaite
Function Responsibility and Internal Control Assessment
Audit Review of HPN Launchpad Code Acquisition

<table>
<thead>
<tr>
<th>Business Function Responsibility</th>
<th>Report Date</th>
<th>Period Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate</td>
<td>August 6, 2021</td>
<td>January 2019 – December 2020</td>
</tr>
</tbody>
</table>

Assessment of Internal Control Structure

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness and Efficiency of Operations</td>
<td>(b) (5)</td>
</tr>
<tr>
<td>Reliability of Financial Reporting</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Compliance with Applicable Laws and Regulations</td>
<td>Not Applicable</td>
</tr>
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</table>

This report was conducted in accordance with the *International Standards for the Professional Practice of Internal Auditing.*

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1 *Legend for Assessment of Internal Control Structure:* 1. **Generally Effective:** The level and quality of the process is satisfactory. Some areas still need improvement. 2. **Inadequate:** Level and quality of the process is insufficient for the processes or functions examined, and require improvement in several areas. 3. **Significant Weakness:** Level and quality of internal controls for the processes and functions reviewed are very low. Significant internal control improvements need to be made.
Executive Summary of Observations, Recommendations and Management Responses

This report was concluded in August 2021 and events may have superseded audit observations and recommendations.

<table>
<thead>
<tr>
<th>Summarized Observation Risk Rating</th>
<th>Management Agreement with Observation (Yes/ No)</th>
<th>Internal Audit Recommendation Summary</th>
<th>Accept IA Recommendation (Yes/ No)</th>
<th>Management’s Response to IA Recommendation</th>
<th>Estimated Date of Implementation (Month/Year)</th>
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<tr>
<td>Observation 1 - Lack of Compliance with Procurement Policy: All acquisitions by the Corporation are required to adhere to the Corporation’s Procurement Policy Manual and related procedures. However, Internal Audit was unable to obtain evidence the acquisition went through Procurement or verify Procurement’s involvement with the acquisition.</td>
<td>YES</td>
<td>Recommendation 1: Internal Audit recommends that the Corporation consistently comply with Procurement’s Policy Manual, which “applies to all acquisitions”. Furthermore, major software acquisitions ² such as this one should also adhere to related guidance in Standard Operating Procedure 103 (“IT Project Governance”).</td>
<td>YES</td>
<td>The justification memos to the board detailed the purchase for and made notice to Procurement of this transaction. What was missing from the procurement process was the Sole Source Justification documentation. In addition, a copy of the contract was not sent to Procurement to be set up in the system for payments. The acquisition did comply with SOP103 and is noted in minutes from the review committee that was formed as a requirement of SOP103. We would recommend a</td>
<td>N/A</td>
<td>Internal Audit Accepts Management’s Response. However, we should note that the justification memos to the Board detailing the purchase for and notice to Procurement do not waive compliance with the Procurement Policies of the Corporation.</td>
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的风险评级: (b) (5)

² Defined in SOP 103 as exceeding either $500K in cost or 1 year in implementation time (labeled “Standard Project”).
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| **Observation 2 - Insufficient Project Planning and Schedule:** | YES | Recommendation 2: Internal Audit recommends that for future projects of this scale and complexity the Corporation comply with SOP 103 (“IT Project Governance”). Within this context,  
- The project’s planned milestones are to be assessed during the evaluation of the Project Brief and Business Case performed by the IT | YES | feasibility study prior to engaging in another project like this. The SOP 103 would only come into practice after a project received approval to move forward. | N/A | Internal Audit Accepts Management’s Response |

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3 This start date target had been fixed as early as January 2019 - even before the Launpad acquisition was seriously considered and before required resources were in place. Then by August 2019, the document titled “Enterprise Risk Summary - CMS Development” provided only the following explanation: “The Director of Salesforce Technology feels that the product can be ready by January 2020 and the COO has added two months for development delay.”

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| timelines, resource estimates and related quantitative risk analysis that could have reasonably supported the 31 March 2020 deadline⁴. | Project Governance Board;  
- An IT Project Steering Committee is to be established for each project, “to monitor progress on the project”, and “direct corrective actions involving schedule and budget variances”, among other aspects;  
- Estimation methods such as “Project Baseline Guidelines” are to be employed; and  
- A central Project Documentation Repository is to be maintained. | | | delays. Securing an external consultant helped identify the key issue in this project was that it was being run as a waterfall vs an agile project. All future tech project must be executed using an agile process. | | |

⁴ Although the updated Enterprise Risk Summary - CMS Development (Aug 2019) referred to a “Detailed roadmap completed”, no such document could be provided to Internal Audit.
<table>
<thead>
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<th>Summarized Observation</th>
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<tbody>
<tr>
<td><strong>Observation 3 – Inadequate Verification of Software Deliverables:</strong></td>
</tr>
<tr>
<td>Internal Audit determined that there were a number of functionality gaps upon delivery of the HPN source code. While certain measures (e.g., technical briefings by HPN, source code scans, a functionality review and comparison of Launchpad to Compass, system environment compatibility test, etc.) were taken, as part of the due diligence process; there was no opportunity to verify that the software would perform as intended within Compass.</td>
</tr>
<tr>
<td>Even prior to the Acceptance Termination Date there were key functionality gaps in</td>
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<tr>
<td>YES</td>
<td>Recommendation 3: Internal Audit recommends that Management adhere to SOP 103 (“IT Project Governance”). Within this context, any potential software vendor contract of this scale and complexity is to be reviewed and approved by the IT Project Steering Committee and IT Project Governance Board prior to commitment. These bodies are to independently consider any uncertainties surrounding the software to be acquired and measures NWA should</td>
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<tr>
<td>Accept IA Recommendation (Yes/ No)</td>
<td>YES</td>
<td>IA’s recommendation is appropriate for the observation, however what they fail to understand was that it was not possible to confirm that the software NW received would “perform to NW’s satisfaction” because the NW Compass tool was not built out enough at that time to integrate and test. The purchase of the code from a trusted source (HPN), and testing available to date identified the minor bugs, some of which were corrected by HPN.</td>
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5 The Launchpad source code was scanned through various tools (e.g., Checkmarx) to ensure that it did not contain security weaknesses that could easily be exploited and to estimate its dimensions and complexity (e.g., numbers of different types of objects, such as database fields).

6 For example, there was no opportunity to convert any of HPN’s source code to incorporate within a test Compass application instance, and to perform user acceptance testing on the resulting software.
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<td>modules specifically referenced(^7) as deliverables in the agreement with HPN.</td>
<td>take to mitigate these risks.</td>
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<tr>
<td>Risk Rating: ((b) (5))</td>
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<tr>
<td><strong>Observation 4 - Inadequate Consideration of Risk in Customer Base Valuation:</strong> Management assigned a valuation of ((b) (5))(^8) to HPN Launchpad’s “customer base”, however there were various risks inherent in the assumptions underlying that valuation that received insufficient consideration:</td>
<td>YES</td>
<td><strong>Recommendation 4:</strong> Internal Audit reiterates its recommendation that any major purchase or investment in technology and prospective customer portfolio, comply with NW’s SOP 103 (“IT Project Governance”), Section 5.2 stipulates the implementation of an IT Project Governance Board, a deliberative body with appropriate technical and formal</td>
<td>YES</td>
<td>Documents, email, and interviews with the team, confirmed a customer base of 240 organizations. As is clearly detailed in the HPN purchase agreement, management estimated a conservative number of ((b) (5)) customers to determine value for payment of royalties.</td>
<td></td>
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<tr>
<td><strong>a. Acquisition of Launchpad Customer Base:</strong> Management proposed to the Board this purchase of HPN</td>
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\(^7\) Especially Tri-Merge Credit Pool reporting and Intermediary and State reporting functions. Other software defects became apparent well after the Acceptance Termination Date.

\(^8\) The Memorandum to Board titled “Purchase of Launchpad Code and Customer Base from the Housing Partnership Network (HPN)”, Sheila Rice, 18 July 2019.
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<td>Launchpad’s “customer base”⁹⁹. The valuation assumed that Launchpad customers would migrate to Compass but there was insufficient consideration that it could be substantially lower.</td>
<td><img src="image.png" alt="Image" /> authority to evaluate and provide approval on key project decisions. Within this context, it would require an evaluation of the business case, project, and associated risks (including key financial aspects), prior to entering into legal commitments with third parties.</td>
<td><img src="image.png" alt="Image" /> began, there were a confirmed 213 clients. 57 met the onboarding schedule and requirements and were all migrated by Oct. 1, 2021.</td>
<td></td>
<td></td>
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<td>not the overall pool of customers.</td>
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b. **Financial Impact of Implementation Delay:**
   The valuation did not factor in the risk of lost revenues⁹⁹ or potential customers estimated to migrate from HPN that might result from delays in the implementation of the Launchpad code in Compass¹¹.

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⁹ The term “customer base” suggests a portfolio of customers that can be relied upon for future business - usually because these customers have repeatedly purchased the services from the provider over an extended period of time.

¹⁰ There was brief mention of this risk, as follows, in the Corporation’s updated document titled “Enterprise Risk Summary - CMS Development”, August 2019: ![Image](image.png)

¹¹ As mentioned above, HPN claimed additional production support costs of $500,000, due to implementation delays on NWA’s part.
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<tr>
<td>c. Impact on Costs: Lastly, it appears that the (b) (5) valuation presented to the Board did not consider increased costs that would normally be associated with setting up and maintaining the additional subscribers acquired from Launchpad.</td>
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**Risk Rating:** (b) (5)

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12 As reflected in the underlying equation: “…” (b) (5) …,” already noted above.
Risk Rating Legend

Risk Rating: High
A serious weakness which significantly impacts the Corporation from achieving its corporate objectives, financial results, statutory obligations or that may otherwise impair the Corporation’s reputation.

Risk Rating: Moderate
A control weakness which could potentially undermine the effectiveness of the existing system of internal controls and/or operational efficiency, integrity of reporting and should therefore be addressed.

Risk Rating: Low
A weakness identified which does not seriously detract from the system of internal control and or operational effectiveness/efficiency, integrity of reporting but which should nonetheless be addressed by management.

<table>
<thead>
<tr>
<th>Management Responses to</th>
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<tr>
<td>The Audit Review of:</td>
</tr>
<tr>
<td>HPN Launchpad Code Acquisition</td>
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<thead>
<tr>
<th># Of Responses</th>
<th>Response</th>
<th>Recommendation #</th>
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<tbody>
<tr>
<td>4</td>
<td>Agreement with the recommendation(s)</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Disagreement with the recommendation(s)</td>
<td></td>
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</table>
**Background:**
In December 2018, NeighborWorks America completed a two-year effort to develop a business plan and strategy to replace its existing customer management system (CMS) for the Network Organizations (NWOs) and the Housing Counseling Agency industry, CounselorMax. Building on its SBI Tech prototype experience, in November 2018, the Corporation requested\(^\text{13}\) and received Board approval to embark on an initiative to develop a new and improved CMS that would become known as NeighborWorks Compass (Compass).

NWA executed a Purchases and Services agreement (valued at $1 million\(^\text{14}\)) with HPN on 27 September 2019 that provided an evaluation window of approximately one month\(^\text{15}\) (concluding on what the agreement termed the Acceptance Termination Date, 31 October 2019) for each party to potentially back out of the deal. The Corporation performed a series of preliminary measures to assess certain aspects of the software and to validate the valuation of the customer base. On 01 November 2020, the Corporation moved forward with the “Acceptance Payment” indicating acceptance of the Launchpad Code and other deliverables by HPN.

**Objectives:**
The primary objective of this review was to obtain assurance on the operational efficiency and effectiveness of the HPN Launchpad acquisition.

**Scope:**
The scope focused primarily on the process leading to acquisition of HPN Launchpad and related early-stage project decisions.

The scope of the audit review included the following aspects, among others:
- Acquisition terms and conditions;
- Due Diligence surrounding acquisition;
- Contractual rights and obligations;
- Financial Accounting; and
- Maintenance and management of acquisition

**Methodology:**
The methodology comprised the following:
- Examination of legal materials, such as the executed contract with HPN and prior letters of intent;
- Review of public announcements made by NWA and partner organizations (e.g., Fannie Mae and HPN);
- Review of NWA-internal documents, for example:

\(^{13}\) Management Memo titled “Request for Board Action to replace CounselorMax”, 18 November 2018.
\(^{14}\) This figure was increased by $500,000 in 2021 to cover HPN’s claims of additional production support costs.
\(^{15}\) Specifically, until 31 October 2019, which was referred to in the agreement as the Acceptance Termination Date.
Observations:

Observation 1 – Lack of Compliance with Procurement Policy:

All acquisitions by the Corporation are required to adhere to the Corporation’s Procurement Policy Manual16 and related procedures. However, Internal Audit was unable to obtain evidence the acquisition went through Procurement or verify Procurement’s involvement with the acquisition. The only available formal documentation that involves Procurement was uploaded into NEST approximately five months after the final agreement with HPN had been executed17 which was after the fact. This formal document was a memorandum to the Senior Vice President, Procurement providing clarification regarding the HPN contract and corrective action on following the procurement process going forward.

Recommendation 1:

Internal Audit recommends that the Corporation consistently comply with Procurement’s Policy Manual, which “applies to all acquisitions”18. This will be important not only to ensure proper contractual management but to also safeguard the integrity of NWA’s control environment. Furthermore, major software acquisitions19 such as this one should also adhere to related guidance in Standard Operating Procedure 103 (“IT Project Governance”), which specifies input by IT&S and agreement by Procurement on vendor contracts20.

Observation 2 - Insufficient Project Planning and Schedule:

Major information technology projects are inherently risky and special care is required especially to manage the risk of schedule overruns. In this case, satisfying the agreed-upon migration schedule (31 March 2020 – 01 October 2020) was a key factor in the success of the original $1 million deal with HPN and related project because:

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17 Following the change in project leadership, Management took steps to provide clarification regarding the HPN contract and to initiate corrective actions in this regard, as reflected in a Memorandum to File, dated 14 April 2020.
18 NeighborWorks Procurement Policy Manual (version December 2018), page 3, Section I-A.
19 Defined in SOP 103 as exceeding either $500K in cost or 1 year in implementation time (labeled “Standard Project”).
20 SOP 103 Section 11 (See attachment A).
• Deadlines were contractually stipulated in the executed agreement\(^{21}\) with HPN, with provisions for additional compensation for HPN in the event that the migration were not completed by 01 October 2020;

• Upon signing the corresponding Letter of Intention (LOI) the previous month, the Corporation had made public announcements that Launchpad customers would be able to start migrating to NeighborWorks Compass® by March 2020\(^{22}\); and

• Management presented the same migration schedule to the Board of Directors when it requested approval of the planned acquisition from HPN\(^{23}\).

The Corporation’s self-imposed commitment to a 31 March 2020 deadline for the launch of NeighborWorks Compass® and the start of the migration of Launchpad subscribers was highly aggressive\(^{24}\). At the Acceptance Termination Date of the agreement with HPN, there was no substantive project plan, timeline with milestones, resource estimates and related quantitative risk analysis that could have reasonably supported the 31 March 2020 deadline\(^{25}\) - even though only five months remained until the agreed start of migration of Launchpad customers. This also increased the likelihood that the migration would not have been completed by the agreed-upon end-date of 01 October 2020.

Efforts have been made to establish a more realistic schedule since January 2020\(^{26}\); however, the migration of Launchpad customers to NeighborWorks Compass® is still not estimated to begin (and would be of a limited nature\(^{27}\)) until May 2021 – representing a roughly 200% schedule overrun\(^{28}\) relative to the 31 March 2020 deadline.

This overrun could potentially result in some reputational harm to the Corporation by undermining its perceived credibility and capacity to manage high profile projects

**Recommendation 2:**

\(^{21}\) Paragraph 6.2 on pp. 4 – 5 of the Agreement states “Beginning on 3/31/2020, HPN Customers … shall be entitled to migrate to the Platform … All HPN Customers shall have migrated to the Platform by 10/1/2020, by which date, HPN shall have terminated licenses to HPN Customers…”. As discussed below, a subsequent amendment allowed for covering an additional year of production support costs.

\(^{22}\) These announcements were also copied and republished by other industry organizations, such as Fannie Mae and HPN. Some variations of the announcements referred to a “Spring 2020” migration date, as opposed to March 2020.

\(^{23}\) Memorandum titled “Purchase of Launchpad Code and Customer Base from the Housing Partnership Network (HPN)”, 18 July 2019, NeighborWorks America Acting COO, Section “What are we buying?”, Page 1.

\(^{24}\) This start date target had been fixed as early as January 2019 - even before the Launchpad acquisition was seriously considered and before required resources were in place. Then by August 2019, the document titled “Enterprise Risk Summary - CMS Development” provided only the following explanation: “The Director of Salesforce Technology feels that the product can be ready by January 2020 and the COO has added two months for development delay.”

\(^{25}\) Although the updated Enterprise Risk Summary - CMS Development (Aug 2019) referred to a “Detailed roadmap completed”, no such document was provided to Internal Audit.

\(^{26}\) Following the arrival of most of the development team, the new project leadership team and the “Pause and Reset” exercise.

\(^{27}\) This early period will be restricted to just a pilot test involving just three Launchpad customers.

\(^{28}\) Although part of the elapsed time can be attributed to additional functionality (e.g., SBI Dynamic Dispatch version 3.0) that were not directly related to Launchpad.
Internal Audit recommends that Management comply with SOP 103 (“IT Project Governance”) for future projects of this scale and most especially complexity. Within this context:

- The project’s planned milestones are to be assessed during the evaluation of the Project Brief and Business Case performed by the IT Project Governance Board and before a given project is approved and assigned a priority;29
- An IT Project Steering Committee is to be established for each project, “to monitor progress on the project, prioritize and approve change requests, provide direction, approve project predefined exit gates, direct corrective actions involving schedule and budget variances, acquire resources and help remove project roadblocks”30;
- Estimation methods such as “Project Baseline Guidelines” are to be employed to support the formulation of project timelines and budgets – including the estimation of timelines for procurement of vendor services on which a given project depends, monitoring of project execution and reporting of variances against the baseline schedule and budget; and
- A central Project Documentation Repository is to be maintained, as stipulated by SOP 103, Section 4. The repository is to be maintained by the designated IT&S Program Management Office (PMO), which is responsible for System Delivery Methodology compliance.

Observation 3 – Inadequate Verification of Software Deliverables:

Internal Audit determined that there were a number of functionality gaps upon delivery of the HPN source code. While certain measures (e.g., technical briefings by HPN, source code scans, a functionality review and comparison of Launchpad to Compass, system environment compatibility test, etc.) were taken, as part of the due diligence process; there was no opportunity to verify that the software would perform as intended within Compass. NWA was provided with just a 30-day window to adequately “perform testing and validation of the Launchpad Code…” and fully confirm, that the software received would “perform to NW’s satisfaction” and expectations. A valid test would have required conversion and testing of the code within the Compass environment.

29 SOP 103, Section 7 (See Attachment A)
30 SOP 103, Section 5.1 (See Attachment A)
31 SOP 103, Section 8 (See Attachment A)
32 The Launchpad source code was scanned through various tools (e.g., Checkmarx) to ensure that it did not contain security weaknesses that could easily be exploited and to estimate its dimensions and complexity (e.g., numbers of different types of objects, such as database fields).
33 For example, there was no opportunity to convert any of HPN’s source code to incorporate within a test Compass application instance, and to perform user acceptance testing on the resulting software.
34 The space between the Agreement Closing (execution) and Acceptance Termination Dates.
35 Paragraph 4 of the Agreement with HPN.
Prior to the Acceptance Termination Date, there were key functionality gaps in modules specifically referenced\textsuperscript{36} as deliverables in the agreement with HPN and highlighted by Management to the Board. These defects were not resolved by HPN and resulted in the project’s abandonment of the corresponding source code, which included:

- Tri-Merge Credit Pool reporting (which was only able to retrieve pdf reports); and
- Intermediary and State reporting functions\textsuperscript{37}.

However, references to these software deliverables were not removed from the contract. Moreover, a second payment to HPN (of $230,000 on 01 November 2019) was approved, despite these functionality gaps.

**Recommendation 3:**

Internal Audit recommends that Management adhere to SOP 103 (“IT Project Governance”). Within this context, any potential software vendor contract of this scale and complexity is to be reviewed and approved by the IT Project Steering Committee and IT Project Governance Board prior to commitment\textsuperscript{38}. These bodies are to independently consider any uncertainties surrounding the software to be acquired and measures NWA should take to mitigate these risks.

**Observation 4 – Inadequate Consideration of Risk in Customer Base Valuation:**

Management assigned a valuation of \((b) (5)\)\textsuperscript{39} to HPN Launchpad’s “customer base”, however there were various risks inherent in the assumptions underlying that valuation that received insufficient consideration:

a. **Acquisition of Launchpad Customer Base:** Management proposed to the Board (and signed a Letter of Intent for) this purchase of HPN Launchpad’s “customer base”\textsuperscript{40}. The valuation assumed that \((b) (5)\) of the Launchpad customers would migrate to Compass, but there was inadequate consideration that it could be substantially lower. It appears from recent estimates that only 53 – 60 Launchpad customers will migrate to Compass by the end of the migration period in September 2021.

b. **Financial Impact of Implementation Delay:** The valuation did not factor in the risk of lost revenues\textsuperscript{41} or potential customers estimated to migrate from HPN that might result from

\textsuperscript{36} Paragraphs 2.1.1(iii), 3.1, and 6.2. of Agreement with HPN
\textsuperscript{37} There were also other defects that became apparent well after the Acceptance Termination Date.
\textsuperscript{38} SOP 103 Section 11 (See attachment A).
\textsuperscript{39} The Memorandum to Board titled “Purchase of Launchpad Code and Customer Base from the Housing Partnership Network (HPN)”, Sheila Rice, 18 July 2019, stated “The purchase price is based on five years revenue per customer, plus $200,000 for HUD bridge code and state and intermediary reporting: \((b) (5)\).”
\textsuperscript{40} The term “customer base” suggests a portfolio of customers that can be relied upon for future business - usually because these customers have repeatedly purchased the services from the provider over an extended period of time.
\textsuperscript{41} There was brief mention of this risk, as follows, in the Corporation’s updated document titled “Enterprise Risk Summary - CMS Development”, August 2019: “\((b) (5)\).”
delays in the implementation of the Launchpad code in Compass - much less the prospect of substantial additional costs that might be claimed by HPN42.

c. **Impact on Costs:** Lastly, it appears that the valuation presented to the Board did not consider increased costs that would normally be associated with setting up and maintaining the additional subscribers acquired from Launchpad.

**Recommendation 4:**

Internal Audit reiterates its recommendation that any major purchase or investment in technology and prospective customer portfolio, comply with NW’s SOP 103 (“IT Project Governance”); Section 5.2 stipulates the implementation of an IT Project Governance Board, a deliberative body with appropriate technical and formal authority to evaluate and provide approval on key technological project decisions.46 Within this context, it would require an evaluation of the business case, project and associated risks (including key financial aspects), prior to entering into legal commitments with third parties.

**Conclusion:**

Based on the observations above, there is reasonable cause for concern as to whether satisfactory due diligence was performed prior to the execution of the Launchpad transaction by the Corporation. The Observations described above could have been largely mitigated had the Corporation complied with its already existing policies and procedures, such as those laid out in the Procurement Policy Manual and Standard Operating Procedure 103 (“IT Project Governance”).

There was the notable absence of a strong technologically versed sponsor and owner in the leadership team to provide key decisions on technical nuanced challenges; with sufficient authority to firm up such decisions. The recent creation of a Chief Information Officer (CIO) position is a welcome decision by the Board and will greatly mitigate this risk in future projects by their inclusion in the Team Leadership.

Finally, the absence of a formal policy on intellectual property acquisitions further exacerbated what we considered to have been an inadequate undertaking of due diligence. Which lends itself to the question as to whether the Corporation should continue to embark on IT projects of this size and complexity on its own or outsource to more specialized organizations that are set up for such a purpose.

In closing, we would like to take this opportunity to extend our thanks to the Office of the Chief Operating Officer and Program Operations for their excellent collaboration and support throughout this review.

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42 HPN claimed additional production support costs of $500,000, due to implementation delays on NWA’s part.
43 As reflected in the underlying equation: “…,” already noted above.
44 This refers to any IT endeavor that would exceed either a cost of $500,000 or 1 year in implementation time.
45 Applicable to “all IT projects at NeighborWorks” (SOP-103, page 4, Section 1).
46 The stated purpose includes “to review and approve project business case and project prioritization, direct allocation of project resources based on the prioritization of the project, provide general project governance, remove project roadblocks, and provide general guidance, oversight and strategic direction.”
4. IT Project Engagement and Role of IT&S PMO
All major IT projects shall follow structured project management processes and use appropri-ately tailored System Development Life Cycle (SDLC) methodology to effectively mitigate any project execution risk and ensure the delivery of high-quality technical solutions on all the pro-jects on time, and within budget.

All Neighbor Works business units shall engage IT&S on all IT projects their business units are planning to undertake and the IT&S Program Management Office (PMO) will be the primary point of engagement for business units with IT&S as IT projects are going through their normal life cycle process including initial project and program identification, portfolio planning, project prioritization, budget approval, project execution and transitioning of completed application into production support...

The goal of PMO is to offer a process and enable a project management framework that will drive the IT Project Process and help achieve the following objectives:
- Create and maintain centralized Project Documentation Repositories for IT projects.

5. IT Project Governance
The IT Project Governance will have two-tiered control structure; first one at the project level and second one at the corporate level. Every major IT project shall have an IT Project Steering Committee for the project governance at the project level and will be subject to IT Project Governance Board reporting and reviews for IT Project Governance at the corporate level.

5.1 IT Project Steering Committee
The purpose of the Project Steering Committee is to monitor progress on the project, priori-
tize and approve change requests, provide direction, approve project predefined exit gates, direct corrective actions involving schedule and budget variances, acquire resources and help remove project roadblocks. The IT Project Steering Committee will meet monthly and utilize PMO tools such as agendas, meeting minutes, and review of action items.

5.2 IT Project Governance Board Meeting Protocol
The Purpose of the IT Project Governance Board is to review and approve project business case and project prioritization, direct allocation of project resources based on the prioritiza-
tion of the project, provide general project governance, remove project roadblocks, and pro-
vide general guidance, oversight, and strategic direction.

7. Project Initiation and Selection Process
- The purpose of the Project Initiation /Selection process is to review, evaluate and priori-
tize potential projects
• Requestor creates a Project Brief, and a Business Case for desired project consisting of the following components:
  o Brief description, scope, and impact of the project;
  o Quantitative and qualitative business benefits to the organization along with impact and risks of not doing project;
  o High level costs and project milestones.

• Business case submitted to the PMO
• PMO evaluates for accuracy and completeness and schedules review of project(s) with IT Project Governance Board
• IT Project Governance Board evaluates and prioritizes proposed project(s) in alignment with corporate strategic goals and objectives and in light of identified but not yet quantified projects

8. Project Baseline Guidelines
Project baseline is a process of determining project timelines and associated budget and freezing the timeline and approved budget level for monitoring and tracking of project performance. Project shall calculate and report project schedule and budget variances. Once a project is approved and all the required resources have been allocated, the project manager should determine the appropriate timelines for completing the current and immediate next phase of the project and propose for baselining the current and next phase timeline for the project.

All approved baselines for a project need to be closely monitored, tracked, and reported for measuring appropriate project progress. Following are the reporting guidelines for tracking project timelines.

The schedule variance for each major milestone is measured by the amount of delay in terms of calendar weeks required to complete a milestone compared with what has been committed for the baseline. Each milestone shall be assigned a red, yellow, or green status based on the amount of delay associated with that milestone and based on the type of project SDLC.

The budget variance is based on the percentage of overspend of the estimated total implementation cost for the project. The estimated total should factor in actual spend to date, the forecasted spend to date and the forecast spend to complete the project. The estimated total spend is then compared with authorized budget, to determine the percentage of estimated overspend.

11. RAPID Decision Matrix for IT Project Governance
The roles involved in the RAPID decision-making framework are Project Team, Business Process Owner, Business Process Champion, Project Steering Committee, Project Governance Board, and Procurement as shown in the following RAPID matrix. The description of roles in RAPID model are given below. This table also identifies key decisions and approvals that need to be made or obtained as part of a typical project execution as part of IT project governance. The decisions have been identified under each step of the system delivery methodology.
The description of each letter in RAPID decision-making framework is detailed below.

**R** = **Recommend.** Person(s) with this role prepares and recommends a proposal on a key program related decision to make a sensible choice in a timely fashion.

**A** = **Agree.** Person(s) with this Decision Role will need to agree to or negotiate on a recommended proposal for a final decision. The person in this role can exercise a veto on the proposal or may choose to escalate it to a person with role "D" for a final decision.

**P** = **Perform.** Person(s) with this role is responsible for actually performing the assigned activities and tasks timely and effectively by executing a decision.

**I** = **Input.** Person(s) with this role provides input of relevant facts to the Recommender on the feasibility and practical implications of the decision.

**D** = **Decide.** Person(s) with this role decides on a recommendation or makes a final decision on an escalation and commits the organizational resources to achieve program level goals and objectives as recommended.

<table>
<thead>
<tr>
<th>Process Steps ▼</th>
<th>Roles ▼</th>
<th>Project Team</th>
<th>IT&amp;S PMO</th>
<th>Business Process Owner</th>
<th>Business Process Champion</th>
<th>Project Steering Committee</th>
<th>Project Governance Board</th>
<th>Procurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project RASIC</td>
<td>R</td>
<td>I</td>
<td>I</td>
<td>D</td>
<td>A</td>
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<td>I</td>
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<td>Project RAPID</td>
<td>P</td>
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</tbody>
</table>

**Project Execution**

| RFP Approval    | R       | I            | I        | D                      | D                          | D                          | A                        |
| Vendor Contract | P       | I            | I        | I                      | D                          | D                          | A                        |
| Assessment Phase Deliverables | P | I | P | D | D | - | - |
| Project Re-baselines | P | I | I | R | R | D | - |
| Additional Budget Requests | P | I | I | R | A | D | - |
| Implementation Phase Deliverables | P | I | P | D | D | - | - |
| Pilot Rollout | P       | I            | P        | I                      | D                          | I                          | -                        |
| Production Deployment | P | I | P | I | D | I | - |

**Monitoring and Control**

| Change Controls | P | R | R | A | D | D | - |

(Subset of RAPID Matrix in SOP 103, Section 11)