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Library Board Report

To: Newmarket Public Library Board

From: Todd Kyle, C.E.O., Newmarket Public Library
Mary-Anne Wigmore, Director, Information Technology, Town of Newmarket

Date: March 20, 2019

RE: **Library-Information Technology Shared Services Review**

Background:

The purpose of this report is to inform the Library Board of the Information Technology Department and Newmarket Library shared services review undertaken in 2018. A similar report will be presented to Council as an Information Report after the Board has had a chance to give its input.

In 2017 The Newmarket Public Library procured the services of Pesce & Associates to undertake an organizational effectiveness and efficiency review. The goal of this engagement was to conduct an organizational review of specific operational functions to determine the most efficient and cost effective means of delivering services while achieving positive results. Outcomes of the project included recommendations to assist Town departments and Library in becoming operationally effective and efficient, customer-focused with organizational capacity aligned to strategic priorities. Information Technology was one of the specific operation functions examined where opportunities exist to leverage the strengths of each service area to provide enhanced IT Service Delivery.

In August 2018, the Town engaged an external consultant, Perry Group Consulting Ltd., who recently completed an organizational structure and effectiveness review of the IT Department, to further expand and explore the Pesce & Associates recommendations as they relate to information technology.

Discussion:

The project consisted of reviewing Library IT policies standards, technology inventory, documentation, roles/responsibilities, as well as conducting stakeholder interviews and workshops, and a comprehensive technology assessment. The goal of this review is to identify

opportunities for an integrated Library and Town, to realize a more efficient and cost effective means of delivering services while leveraging each entity's strengths and technologies.

The Perry Group is in agreement with the Pesce & Associates report and recommends that the Town and Library pursue the following strategic directions:

Shared Technologies

- A gradual and timely integration of shared technologies where appropriate
- Common infrastructure standards and technologies

Shared technology infrastructure

- Town and Library IT Staff Integrate
- To achieve maximum results, staff must be fully integrated. It is recommended that this occur over two phases

Consistent service delivery

- Service will be provided by the full IT team, from infrastructure through to business systems

Effective governance

- Governance should be in place to ensure that service provided by the fully-integrated team fully meet the need of the Library, while balancing Town integration benefits

The technology assessment uncovered a number of opportunities for sharing technologies including, routing Library network traffic through Town's infrastructure, sharing physical/virtual servers and data storage equipment where appropriate, Town to host Library email, etc. These opportunities will provide a more streamlined approach to IT service delivery while enabling the ability to fully integrate staff. A training plan can be developed to ensure staff in both areas have the skills to support the shared environments. Library staff will be able to take part in IT team meetings/events and vice versa. Perry Group and Pesce & Associates recommended that the Library IT Manager report to the Director, IT to better align the resources in support of the integration.

Other areas for sharing and integration include formal security program, risk assessments, technology governance, cyber insurance, project management and service desk to name a few. Refer to Attachment A for a full list of recommendations and additional information.

The timelines and transition will take place over 2 phases, Short Term (2019) and Long Term (2020+). In the shorter term resources can begin to transition into the new model, security, risk and data assessments can begin, Library can start using Town IT Service Desk tracking software AccessIT and other processes that will offer a quick wins will also be included in this phase. The longer term goals will include the integration of technology and infrastructure (including email), Library to begin using Town IT PMO and methodologies, formalized governance, etc.

Conclusion

The following motions are recommended:

THAT the Library Board receive the report on Library-IT Shared Services Review;

AND THAT the Library Board direct the creation of a Service Level Agreement between the Library and Information Technology based on this report and any other input the Board may have;

AND THAT the Library Board request a joint Information Report be sent to Council to report on the review and any subsequent Board decisions.

Attachments

Attachment A: IT Shared Services Recommendations and Additional Information

Attachment A: IT Shared Services Recommendations

	Recommendation
Technology	Library staff begin using Town Service Desk to report and track Library service requests
Technology	Library use Town Project Management and technology resources to manage and deliver projects recommended below as well as any other projects
Technology	Perform a study / research what technologies receive preferential pricing for the Library. Understand ability to maintain and effectively manage preferential pricing in an integrated environment. Town/Library to determine cost-effectiveness of maintaining preferential pricing.
Technology	Adopt an approach that 'includes by default' the library on corporate wide Town projects. Leave option open for Library to opt out.
Technology	A third-party security assessment is planned for the Town. The assessment should be expanded in scope to include both organizations.
Technology	Commission a third-party to perform a risk assessment to determine the impact of a breach of Library sensitive data
Technology	Move library email to Town MS Exchange. Licensing lifecycles must be considered. Note that when the Town is ready to move to Office 365, there will be a single migration for all accounts.
Technology	Route Library traffic through Town firewalls
Technology	Develop a plan and execute project to point the Library Wi-Fi Access points to the Town's Aruba controller
Technology	Conduct a project to develop a plan and execute the migration of Library virtual servers from Hyper-V to VMWare and decommission the Library SAN. Lifecycles and lease costs should be considered.
Technology	Perform a data assessment to determine the classification of each type of data (Town and library project)
Technology	Consider cyber-insurance and if possible, obtain a single policy for both organizations. Determine the value and need for such insurance

Technology	Investigate if Veeam can provide all backup services for the Library and prepare a workplan to consolidate backup services. Lifecycles and lease costs should be fully evaluated.
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Technology	Develop a roadmap to consolidate switches as they reach end of lifecycle
Resources	Library Manager and Staff to physically remain located at Library location in the immediate term, while becoming a part of the IT Team.
Resources	Develop an integration and training plan for Library and Town staff – with a focus on knowledge sharing between teams, increasing both teams understanding of each environment
Resources	Library IT Staff should become active members of the Town’s IT team. Thus, Library IT staff should participate in all IT team meetings, IT team events, and be added to IT mailing lists, etc. where appropriate and agreed upon.
Resources	Library IT Manager to attend standing IT Management meetings and hold one on one meetings weekly with the IT Director.
Resources	Determine the support requirements at the Library and how Town IT staff can help
Governance	Develop a formalized Service Level Agreement or Memorandum of Understanding between the Library and Town IT service to define and document services, service expectations and targets. Evolve the SLA as the IT delivery model adjusts over time
Governance	Implement a monthly Service Review meeting – IT Director, Library CEO, Library IT Manager, (Town IT Team Managers when required). The service review process should review the previous months service requests, change requests, projects and future opportunities + should monitor performance against SLA / MOU.
Governance	Formalize corporate technology governance model, and integrate library processes into corporate governance where appropriate. Develop required including policies, that are unique to Library.
Governance	Adopt the Town process for technology projects review and prioritization to ensure that resource availability is fully considered. Determine approach to handle alternative Library funding arrangements.

Governance	Formally review SLA, performance against SLA and performance of the ‘new’ model on a regular basis. Review to include Commissioners of Community Service, Corporate Services, Library CEO and IT Director.
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Additional Information	The Library has confirmed that sensitive data (PII) resides on production storage and associated backups. This data must be analyzed and properly classified and protected. The Library should be included in Town's Data Strategy
Additional Information	There are no formal help desk procedures in place to track issues and capture resolutions for historical reference and trend analysis purposes. It's recommended that the Library leverage the Town's Service Desk solution (ManageEngine).
Additional Information	In considering the potential impact pertaining to a security breach of sensitive data residing within the Library infrastructure, it is recommended that <u>both</u> the Town and Library obtain the services of a third-party for the purposes of an IT Threat/Risk/Vulnerability assessment.
Additional Information	The Town had a security assessment in 2015 but this has not resulted in a formal program that includes regular assessments. The Library has never had a security assessment and currently has no policies in place to address items such as password management or acceptable use of library computers. Our recommendations include a security assessment for <u>both</u> the Town and Library.
Additional Information	The Library does <u>not</u> currently have cyber-insurance. In considering the movement of sensitive (PII) data in the library infrastructure (in-motion and at-rest), cyber-insurance coverage is recommended.
Additional Information	Physical Server - i-Tiva Application. The dialogic card (connecting to phone system) requires a physical machine (unless the system is SMS only) as there's no hardware abstraction layer in a VM to support the dialogic card. With the Direct I/O pass-through and although the card appeared OK in Windows device manager, it would not detect in the Dialogic Configuration Manager. This application must therefore continue to reside on a physical server and should stay at the Library.