



Municipality of Kincardine - IT Service Delivery

Q1 2024

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Effective January 3, 2024, The County of Bruce Information Technology Services (ITS) Department initiated activities with the Municipality of Kincardine (MOK) to provide Information Technology (IT) service delivery. This service agreement is a new step for both organizations and we appreciate the Municipality of Kincardine Council, its leadership team, and staff for joining the County on this journey.

This report aims to give a snapshot of how this agreement is progressing, with a focus on the first quarter of 2024.

Onboarding

County ITS Staff worked with Municipality of Kincardine staff to plan and execute the discovery process that we thought matched the scale of this project. We understood that the Municipality of Kincardine's IT environment, policies, processes, and footprint would be different – but not simpler – than ours, so we shaped our onboarding process to concentrate on:

- The creation of a collaboration environment for system state information collection.
- Building Infrastructure discovery and documentation.
- Current IT focused or supported workflows and process documentation.

Collaboration

The onboarding work began in earnest with the creation of several collaboration tools that would allow for County ITS staff to document and access Municipality of Kincardine sites, systems, and services securely. To accomplish this, we leveraged the existing investments in both organization's Microsoft 365 platform. This enabled the creation of integrations and shared spaces that have fostered secure collaboration between MOK and the County of Bruce ITS team members.

These tools include the creation of a shared repository for information via the use of a SharePoint Site, and an associated shared notebook. These tools are incredibly powerful for the type of information exchange and cooperation we knew would be required to begin this project, as they offer a central location for the sharing of information between County ITS Staff and Municipality of Kincardine staff while ensuring that data is kept and securely accessed within our organization.

Utilized Microsoft Teams to ensure quick communication options and pleased that the MOK IT Specialist is a regular attendee of our morning stand-up meetings to discuss overnight incidents, routine system status checks, workload, actions and required supports for the day.

Another important part of the collaboration between our organizations was to ensure the proper care was taken in handling any administrative information that would be required to be

shared. To this end we have provided access to a secure platform within which this information can be stored. This is accessible only to County staff and Municipality of Kincardine staff and requires robust authentication before any information can be submitted, viewed, or retrieved.

We also prioritized the creation of a dedicated after-hours emergency number that could be distributed to Municipal staff as an alternative to the existing practice of using personal mobile numbers. Our intention is for this system to begin sharing the after-hours support duties with County ITS staff in Q2.

As a final piece to the onboarding and integration portion of this journey, County of Bruce ITS Staff were set up with access to the Municipality of Kincardine's Microsoft 365 environment to provide support and services for staff in critical workspaces such as Microsoft Outlook Exchange or SharePoint. This also was an important piece in increasing the familiarity of the County of Bruce ITS Staff with the organization's structure and staff through the commencement of managing users and groups within the Microsoft 365 environment and providing service.

Site Discovery and Documentation

Primarily we focused on documenting sites with largest staff and infrastructure count, visitors, or impact to public services in Q1, with continuing documentation through Q2.

Documentation of the following sites:

- Davidson Center
- Municipal Administration Center
- Water and Wastewater Management Plant
- Mahood Johnson Fire Station
- Tiverton Fire Station
- Tiverton Arena

Development and utilization of documentation templates for sites, with a focus on capturing:

- Software in use
- Key Systems
- Networking Equipment and Infrastructure
- Uninterruptable Power Supplies (Battery Backup \ Power Conditioning \ UPS)
- End User Computing (Workstations. Laptops, Peripherals)
- Printers

Four hours per week (52 total) were dedicated to documenting sites, systems, staff needs and process states. By documenting software, systems, and sites we were able to provide a degree of anticipatory design to what areas staff would be submitting service requests.

This information was critical to the design and implementation of the IT Service Management Platform – detailed later in this report.

Identified in Q1 2024:

- 37 Business Critical Software systems.
- 14 Unique Systems across separate divisions of the organization.
- 35+ network and infrastructure components.
- 244 active end user computing devices.
- 13 UPS.
- 11 shared printers, plus the existence of many local printers which require further enumeration and inventory work.

Our discovery and documentation efforts will continue in Q2 as we expand and enhance our understanding of the IT environment.

Process Documentation and Enhancements

A further priority during the onboarding and discovery process was to begin documenting existing IT processes and services. To accomplish this, we implemented the use of a process inventory tool to capture and define IT involved processes. This will be an ongoing effort as it requires a significant time investment, but has great value in documenting, reviewing, and enhancing processes and services.

Our focus:

- Who owns this process.
- What triggers this process.
- What inputs are required.
- Who can request this process or changes to.
- Communication Requirements.
- Risks.
- Expected Duration.
- Required Outputs.

An example of what this entails is HR Onboarding and Offboarding Process documentation. By documenting per the criteria above, we can establish clarity and understanding of who can request an onboarding and what the expectations for service for the Municipality. We are then able to map this process into the IT Service Management platform for use by HR team members and referenced and actioned by IT Staff.

These efforts also allowed us to discover and enhance other processes in use. The offboarding process currently does not specify how and when laptops are returned to IT for maintenance and updates. While the equipment is recovered, there is no common timeline set as to when IT will receive the equipment. Through this process review we have an opportunity to define and communicate a standard timeframe for equipment's return to IT. This ensures necessary maintenance, assessments, and updates can be performed, which aids in the onboarding process for the next staff member to utilize said equipment. By updating the offboarding process to better define hardware return timelines as a required output, we will enhance both the offboarding and the onboarding process and drive good practices towards inventory management.

IT Service Management Platform

Preceding IT Service Delivery County ITS staff met with Kincardine IT staff and leadership to discuss existing systems and processes. A large area of interest for us during this conversation was to understand the structure of any existing IT Service Management Platform (ITSM). This is a place for staff to submit service requests and report incidents to IT for action.

A fulsome and framework aligned ITSM provides tremendous value as a tool for work scheduling and prioritization, identification and tracking of issues, centralization of communications and documentation, and analysis of trends and patterns over time. This can then be used to evaluate and identify systems, processes, software, and services for issues that impact the organization.

During those initial discussions, it was identified that there was no ITSM platform in use with most requests submitted as an email, phone call or in person conversation directly to MOK IT Specialist. It was also identified that providing an ITSM platform for Municipality of Kincardine staff would be a critical component of our partnership – not only for the value it would create for the management of IT Services at the organization, but also by its bolstering of our discovery process through submissions to such an ITSM platform.

Selection Criteria

The County of Bruce ITS Department already utilized an ITSM Platform, but it was determined that it lacked the capability to scale to support multiple client bases. There was no method built in to allow Municipality of Kincardine Staff, as members of an external organization, to smoothly access and submit requests to the platform. There was also no support for allowing Kincardine IT Staff to work within the platform securely, and no options to keep requests from each organization distinct within the ITSM platform. Lastly, we wanted to ensure that the solution we offered would fit within the Municipality of Kincardine's brand and identity – this would not be possible without selecting a new platform.

Based on these limitations, we set out our criteria for the type of ITSM Platform we felt would provide the most value to both organizations:

- **ITIL4 Alignment:** ITIL4 (Information Technology Infrastructure Library) is the industry standard framework for management of IT services. It contains best practices and processes to ensure IT services are aligned with the needs and goals of the business. This system provides many benefits including measuring service delivery, defining processes, their outputs and providing a value driven perspective for work within Information Technology. The ITIL4 system was already in use in the County of Bruce and is a critical component of our selection process for the ITSM platform.
- **Built in Reporting and Analytics:** Derived from the ITIL4 framework, we defined built in reporting and analytics as a key requirement.
- **Multi-Tenant:** We desired a single platform for IT Staff (both County of Bruce and Municipality of Kincardine staff) to access and work within, but we also required a solution that had the ability to keep requests from each organization distinct. Perhaps more importantly, we sought to offer Municipality of Kincardine staff their own unique, branded experience submitting requests to the system – and the ability to provide a distinct service catalogue based on the systems, software and services identified during discovery.
- **Web based and Mobile Friendly:** Any solution must provide a central portal for staff to submit requests easily. This portal should be accessible for staff whether they are on a workstation in the office or a mobile device in the field.
- **Canadian Data Residency:** Any cloud-based solution offered must be hosted within Canadian Data Centers.
- **Single Sign-On via Microsoft Azure Active Directory:** The solution must not require its own distinct log in – we did not want to increase the number of passwords staff had to keep track of. By requiring Single Sign-On with Microsoft Azure Active Directory, staff would be able to use a log in that they already have. This has many benefits, including enhanced uptake of a solution and security benefits.
- **Scalability:** Our intent is to expand into asset management, change management, documentation and even the incorporation of other departments into the platform to manage their own workloads (ie: Facilities, GIS).

With these requirements, we sent out an RFI to several vendors within the ITSM industry and conducted interviews with respondents that met these requirements. Of those interviews, we scheduled platform demonstrations with 3 vendors, and ultimately selected TopDesk for their ability to best meet all the requirements and our assessment that they would provide the best implementation path to achieve a first quarter launch. Another aspect that stood out for us was the customization options available through their multi-tenancy mode. The platform has a

robust feature set that achieved the goal of providing a distinct and branded experience for Municipality of Kincardine staff and offering an appropriate level of granularity in the experience and workload management of IT technicians working within the system.

Design and Implementation

We completed our selection process in December 2023, design and implementation efforts commenced January 3rd, 2024. We targeted delivery of an ITSM Platform to Municipality of Kincardine Staff for early February, with municipality-wide launch of February 15th, 2024.

In alignment with these goals, our implementation schedule utilized four County of Bruce ITS staff and accounted for over 120 hours of work between our start date of January 3rd and the launch date in February. MOK IT Specialist from was instrumental in this implementation, dedicating several hours working alongside County Staff to configure password-less logon integration between the ITSM Platform and Kincardine's Microsoft environment.

The implementation consisted of:

- Two 3-hour guided implementation calls with the vendor per week.
- Four additional 2-hour working sessions for County ITS Staff.
- Two working sessions with Municipality of Kincardine IT staff.
- Daily touchpoint meetings between County ITS Staff and Municipality of Kincardine IT and Leadership.
- A soft launch period with a small selection of Municipality of Kincardine staff to gather feedback and adjust.
- County Staff and management travelling to the Municipal Administration Center, Davidson Center and Armow Operations Shop to host introductory sessions with all Kincardine Staff and leadership.
- Communication through existing Municipal resources such as Kintranet, alongside visual aids posters distributed to these sites.

The soft launch period and introductory sessions with Municipality of Kincardine staff was something greatly appreciated by County Staff, and we believe it to be a critical component of establishing that this is indeed a partnership – we are here to work together and alongside Kincardine staff.

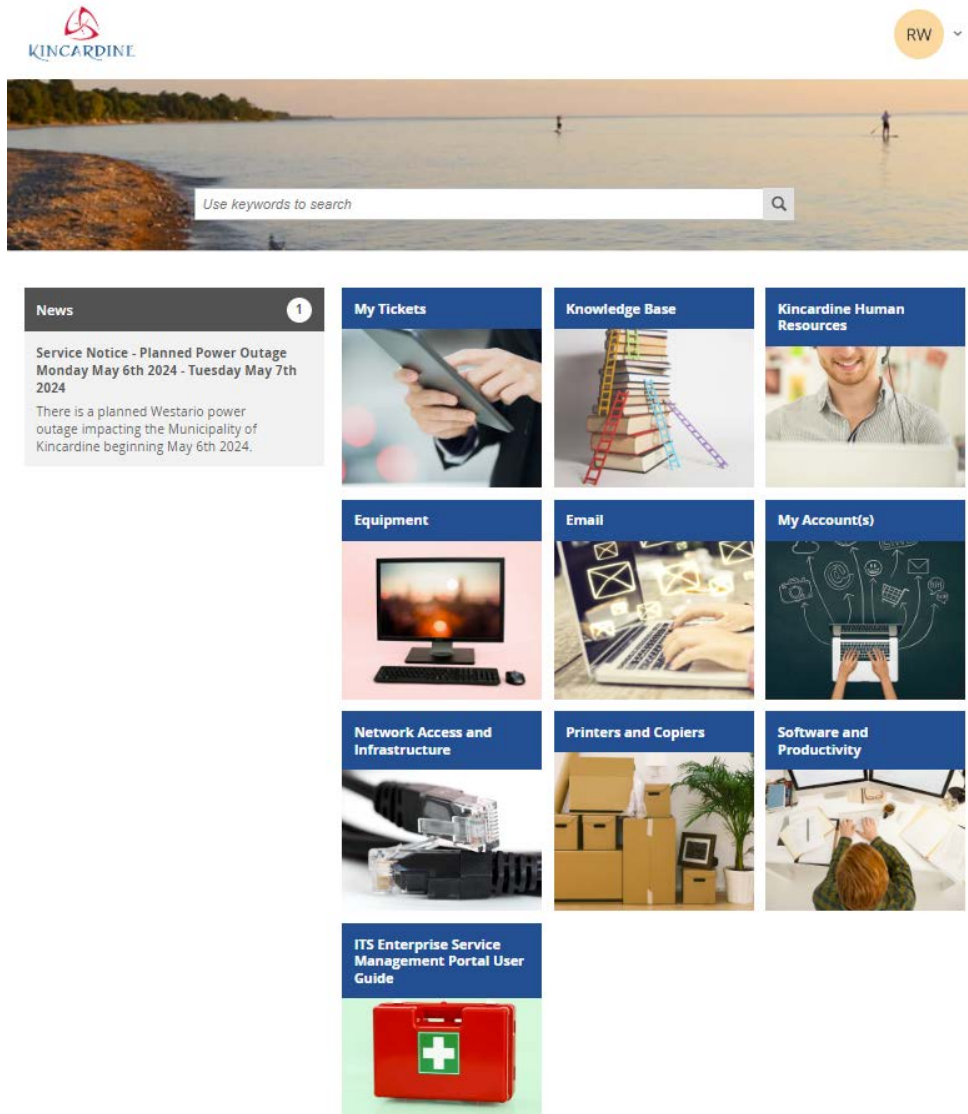
From a design perspective, we wanted to provide Kincardine Staff with a branded portal through which they could report problems and request services from IT. In pursuit of that, we were able to provide:

- 1) A customized website for Kincardine staff to access the ITSM Service Portal

- 2) A customized and branded log in page, featuring logos from both organizations and a distinct and clear method for staff to log in to their Service Portal:



3) A Service Portal that was consistent with Municipal branding and identity:



Referring to the image above, each tile represents a Service. These categories act as starting points for reporting a problem, requesting service, or asking a question. This is the foundation of what is referred to as a service catalogue – the standard services and systems provided by and supported through an IT department.

Viewing this as an opportunity to design the service catalogue from the ground up, we leveraged the site discovery work that was ongoing to bolster our efforts to provide a relevant service catalogue for staff to use in the Self-Service Portal. To that end, we were able to launch the Service portal with 7 distinct Service categories, containing a total of 34 identified subcategories that staff could report issues with, request services for or submit questions regarding on day one. For continued discovery, we included an “Other” subcategory within

each section which will be reviewed quarterly for high volume items that should be added to the standard service catalogue.

During the service catalogue design, we also generated 24 customized forms for Municipality of Kincardine staff to utilize when interacting with the service portal. This was based upon the process inventory that we began in Q1, which allowed us to leverage your service catalogue as a place to document processes and move the requests out of the MOK IT Specialist's email mailbox. Now, when a new employee onboarding is needed there is a standard form to fill out for Human Resources staff.

This form serves as an example of how business processes can be refined and enhanced through a service catalogue – it clearly sets out expectations and requirements for a new staff member and helps IT staff prioritize work and hardware requirements. This leads to a better first day experience for the new staff members and their supervisor.

Request New Onboarding

Caller

Name	Ryan Whitmore
Branch	Municipality of Kincardine
Email	rwhitmore@kincardine.ca
Department	

Details

Please try to provide at least 2 weeks notice for Onboarding.

Employee ID number	<input type="text"/>
New Hire Name *	<input type="text"/>
Position *	<input type="text"/>
Manager *	<input type="text"/>
Department *	<input type="text"/>
Location *	<input type="text"/>
Job Status *	<input type="text"/>
Start Date *	<input type="text" value="mm/dd/yyyy"/>
End Date if applicable	<input type="text" value="mm/dd/yyyy"/>

Access

Please list what systems or software this staff member will need access to - for example, Keystone, Laserfiche *

Hardware

What hardware is required for this position? *

Does this position require a mobile phone? *

- Yes - existing device
- Yes - new device needed
- No

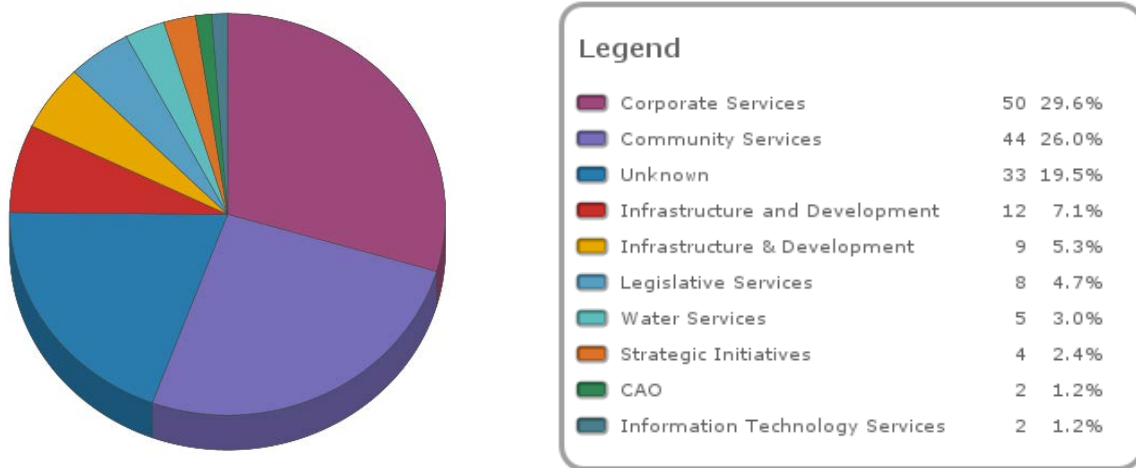
* Required fields

Submit

Q1 2024 - Service Request Analysis

Based on our discovery work prior to the launch of the ITSM Platform on February 15th, 2024, we anticipated 15 submissions per week. For the period of the first quarter that remained after launch, Municipality of Kincardine staff submitted 169 service requests, which averages 28.16 requests per week for the initial 6 weeks.

Department



Service Requests by Department

Reviewing the request distribution by department we can see that service requests primarily came from Corporate Services and Community Services, with Unknown also representing a good portion of the intake. It is appropriate to understand that further analysis addresses the list of departments (duplicates) and the large percentage of “Unknown” that appears in the legend as a go-forward housekeeping activity.

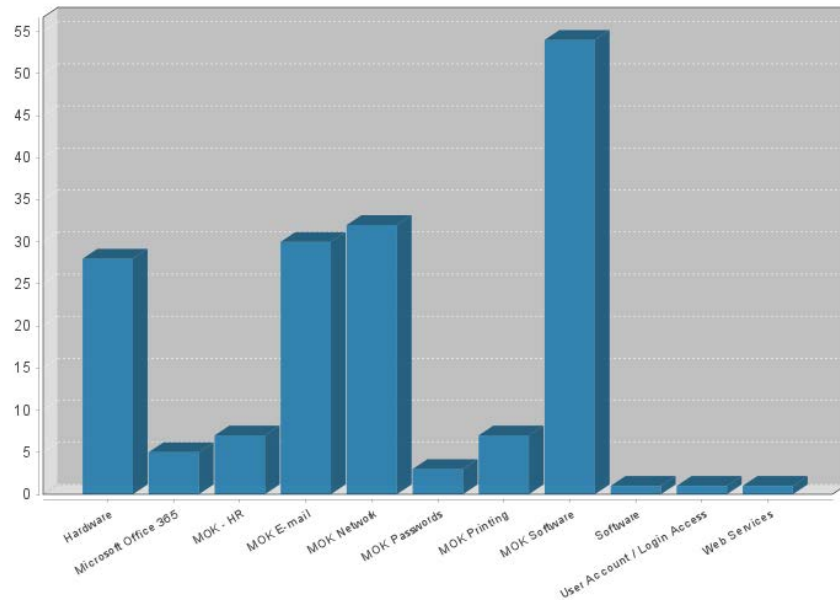
During our launch period we regularly reviewed ITSM submissions as part of our ongoing discovery process and identified this issue. On investigation, we determined that efforts would be needed to ensure that staff information (Department, Supervisor, Location etc.) was complete within the MOK’s directory. This directory of information is where the requesters’ information is drawn from, resulting in the inconsistencies identified in the legend above. Remediation work has begun on this but will take time and process modifications. As a net result of identifying this issue and addressing it we will drive better reporting on request ingestion as well as providing a complete staff directory within the Microsoft environment. This directly impacts the day-to-day use of tools like the Global Email Address List in a positive way.

Service Category

Looking to the categories that drove service request submission in the first quarter, we found the top 3 contributors to service request submissions were:

- Software
- Network
- Email

These three areas – the software, the network, and the communication method – cause many requests, and we will look at each one more in detail in these reports.

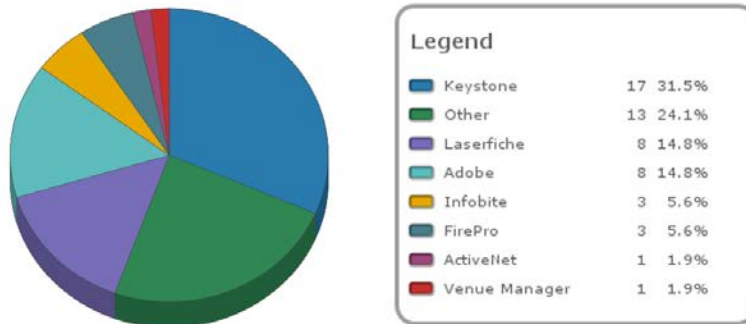


Service Request Intake by Service Category

Software Subcategories

The software type indicates that Keystone, the financial management system, was the source of most service requests in the first quarter. This software is crucial but problematic for Municipal staff. The data on service requests reveals that – 64% of Keystone submissions reported that staff throughout the organization were unable to use this important software.

There were 11 occurrences in 30 working days.



Service Request Intake Software Subcategories

Q2 will focus on working with Kincardine staff to improve and fine-tune preventive actions to fix this serious operational problem. It is a known problem that was well documented before our partnership, with a workaround – and are prioritizing improved staff experience through the design and implementation of an automated service restoration tool.

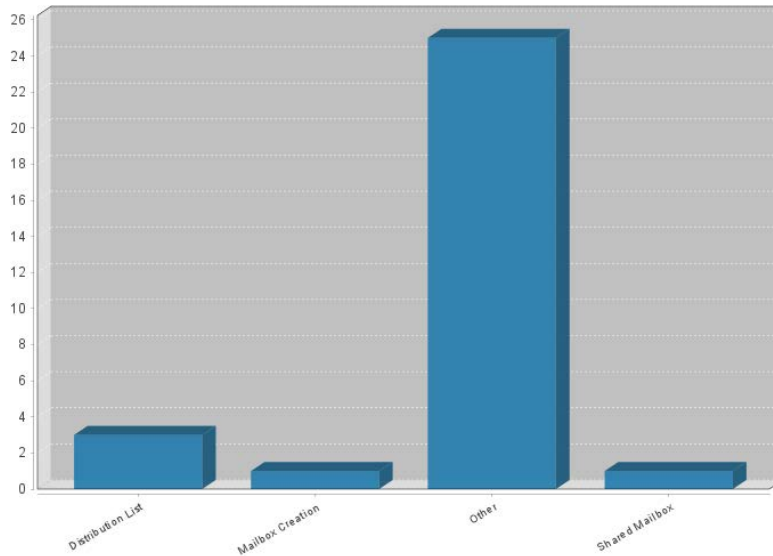
We expected the software categories to change as we process service requests. The Other category was the second highest category, staff submissions were examined to expand on classifications and allow for theming and trending of issues going forward more accurately. We will keep improving the user experience, initial classification and encouraging the use of the search bar in the service portal to help staff find what they need.

Email Subcategories

The Email category, which is the second largest source of submissions to the ITSM Portal, demonstrates how we can enhance our service delivery by reviewing data regularly. In this case our expected subcategories for the email service were not very precise - but we managed to capture these correctly through the "Other" category.

This category had diverse submissions, with the biggest portion being requests to retrieve email from the quarantine, which accounted for 32% of email submissions in the "Other" category. There were two different email quarantine systems in use at that time, and the submissions showed that staff were having trouble with finding and releasing messages.

Working with MOK IT Specialist, we evaluated the quarantine set up and have merged into a single quarantine system to reduce these occurrences. This will be monitored, and "Quarantine" will become a regular email category.



Service Request- Email Subcategories

The other submissions did not identify a shared problem or a particular area of difficulty but do suggest more ways to classify and improve the reporting. These are:

- Email Signatures
- Meeting Room Calendars
- Regular Mailbox/User Calendar sharing
- Application issues

As part of our regular quarterly review activities, these will be accounted for through additional categories for service request ingestion.

Network Subcategories

The Network category represented the third highest driver of ITSM submissions in the first quarter, and this is directly attributed to a specific event that occurred within the quarter.

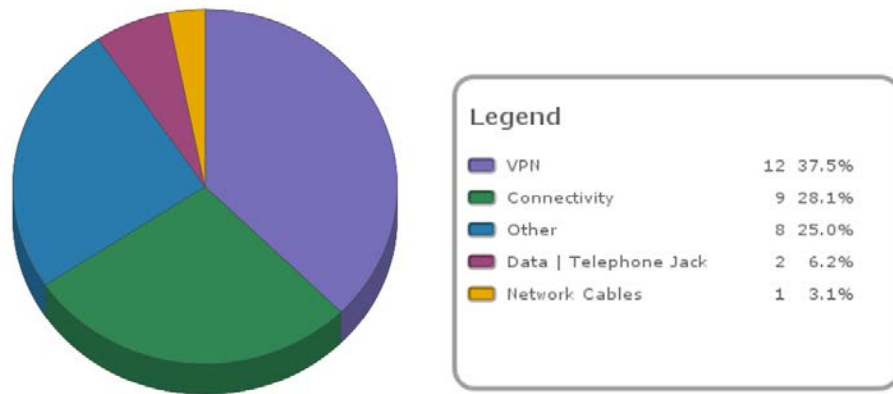
The VPN (virtual private network) solution which allows MOK computers on non-MOK networks to access shared resources and systems was updated by the vendor on or around February 22nd, 2024.

This update was not communicated in advance to Municipal IT Staff and required VPN client software on all computers also to be updated.

There was significant impact to business operations for remote workers and sites. The number of VPN incidents submitted is low compared to the known scale of impact, we will be

monitoring this service category over the next quarters to determine the overall stability of the current solution.

The Connectivity subcategory was mostly populated by issues from a specific site during a particular date range. After maintenance on a power supply for network equipment, 2 devices at this site did not come back online; causing impact to the ability to receive operational data. Ultimately these submissions do not represent a trend but are related to a specific event.



Service Requests - Network Subcategories

The Other subcategory did not establish any trends or common causes that are concerning, but we will be adding a subcategory for “Network Drive Access” as that was the only source with more than one submission within this subcategory.

Service Levels

Average resolution times for incidents by urgency are in line with the service level objectives agreed to at the onset of this partnership. We will continue to monitor these levels and seek efficiencies and improvements through process refinement and development.



Priority	Total
	Average adjusted duration (hh:mm)
1 - Urgent	0:33
2 - High	1:06
3 - Medium	8:46
4 - Low	7:18
Total	7:49

Other Initiatives

End User Computing Hardware Savings

One of our early conversations revolved around workstations and replacement cycles –what workstation is deployed and at what cadence they get retired. During these discussions we learned that all staff were being provided with workstations that utilize a high-end processor and generally providing much more computing power than required for normal office-based workloads. We recommended a different model of laptop – one that we are also using for County Staff – that can accomplish regular workloads but is roughly half the price of the previous selection.

This pricing was made available through leveraging a joint vendor of record (VOR) for computing hardware. The current unit price of this new laptop is \$655.67, previously, and regularly this exceeded \$1000 per device.

Access to internal infrastructure

County of Bruce staff configured and installed systems at the Municipal Administration Center to allow secure access to Municipality of Kincardine infrastructure for the purposes of supporting staff and services.

This system does not require a direct network connection of County and Municipality of Kincardine sites – keeping the network environments completely separated and will be a leveraged for continued discovery and assessment activities in addition to regular support in Q2 onward.

Deployment of Remote Assistance

Began activities to deploy remote assistance tools to Municipal workstations during Q1 with deployment complete in Q2.

Dedicated MOK Phone Numbers for IT Service Desk and After-Hours Support

The provision of dedicated phone lines for deskless Municipal staff to use for IT Services during both regular hours and after hours. Implemented a voicemail to speech service that automatically generates a service request should staff leave a voicemail.

Observations, Recommendations and Next Steps

Much of our efforts in Q1 were focused on onboarding, documentation and the implementation and delivery of the IT Service Management solution, and the subsequent adjustments and monitoring required after going live. However, during Q1 we were able to observe some aspects of the current IT Environment that allow us to make some recommendations at this early stage:

Identity Management

Currently there are at least 4 different credential sets that Municipal staff utilize to access workstations, emails, key software, and network resources. We recommend informational activities be pursued to understand how this number can be reduced.

Reducing the number of logins for staff can have several security benefits:

Reduced Risk of Phishing Attacks: With fewer logins, the chances of staff falling for phishing attacks can be significantly reduced. Phishing attacks often target login credentials, so having fewer logins can help mitigate this risk.

Simplified Credential Management: Managing credentials for multiple logins can be challenging and may lead to security issues such as weak passwords or password reuse. Reducing the number of logins simplifies credential management and can lead to stronger security practices.

Improved User Compliance: When staff have fewer logins to remember, they're less likely to write down passwords or save them in insecure ways. This can improve overall compliance with security policies.

Less Surface for Attacks: Each login system can be a potential point of entry for attackers. By reducing the number of logins, you're effectively reducing the attack surface.

In addition to the items above, there is currently a duplication of user accounts between the on-premises Directory and the Cloud Directory. This doubles the effort requirements for maintaining accounts and offers a good opportunity for efficiency in regular IT activities such as staff account onboarding, offboarding and management.

Hardware Replacement Cycle

By replacing IT assets regularly, we can ensure they are good enough and consistent for staff to do their work. It also helps us manage, plan, and budget the financial costs of updating workstations and infrastructure over time.

This also simplifies support and process, as the equipment used during a replacement cycle can

be the same. We would expect fewer different processes and support needs.

County staff will keep evaluating inventory in Q2 because the current replacement needs are unclear.

Printer Requirements Assessment

It is noted that while Municipal sites primarily use several large Toshiba Multi-Function Printers, numerous desktop printers are also utilized by staff. We recommend conducting a printer needs assessment with the vendor.

Similarly, the use of desktop printers at the Municipality, rather than the standard Toshiba Multi-Function Printers, complicates the environment. This complexity is due to increased support requirements such as drivers, firmware updates, and addressing vulnerabilities. Although specific cost-per-page figures for these desktop printers are not available, it is important to mention that typically, the cost of printing per page on desktop printers is significantly higher compared to large multi-function printers.

Vendor Services and Communications

We will concentrate on reviewing processes concerning the communication of changes to vendor-managed systems and services. This review will enable us to make recommendations regarding the communication of updates and impact assessments, as well as the timing of major updates to reduce operational risks. To the best of our knowledge, there are no defined requirements defined for these processes.

On-Site Support

County ITS staff will frequently work from the Municipality of Kincardine sites. This strategy is designed to facilitate desk-side support and foster deeper integration between our organizations and is crucial in enhancing operational understanding for County staff, while also fostering a spirit of teamwork and collaboration between the County and Municipal staff

Continued Site Discovery and Assessments

Q2 will see the continuation of the discovery efforts but changing tactics towards site tours and physical assessments of equipment in place. This will allow us to ensure we have records and robust documentation of systems and equipment, firsthand knowledge of site layouts, and the ability to define important details like make, model, purchase date, in-service date of equipment. We will begin with revisiting some of the key sites reviewed in Q1 with physical visits and tours.

Concluding Remarks

We appreciate the involvement and input of the Municipality of Kincardine staff and leadership as we maintain our partnership. County Staff have enjoyed working with Municipal staff, both within the IT departments and through the IT Service Management System. Through this collaboration, we will improve and enhance systems, processes and plans that will benefit our staff and the public we serve.