Ottawa

Office of the Auditor General

Audit of 3-1-1 Contact Centre

Tabled at Audit Committee – November 26, 2015

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Executive Summary

Introduction

The Audit of 3-1-1 Contact Centre was included in the 2014 Audit Plan of the Office of the Auditor General (OAG), approved by Council on March 26, 2014.

Background

The 3-1-1 Contact Centre (3-1-1), the City's centralized contact centre is part of the Client Operations branch of the ServiceOttawa department. It provides information to residents, businesses and visitors about City programs, services, policies, procedures, permits, fee structures, etc. 3-1-1 is open 6 days a week for all types of inquiries and services (by telephone and by e-mail), and 24/7 for urgent requests (e.g., traffic lights not functioning, broken water mains and By-law complaints).

In 2014, 3-1-1 created approximately 250,000 service requests received by telephone and e-mail and answered 500,000 calls from both internal and external clients. It operated with 30.4 FTEs (agents, senior agents, coordinators) and had an operating budget of $2.4 million.

Two of the ServiceOttawa department's branches directly support 3-1-1: Knowledge and Web Services (KWS) and Quality Assurance and Continuous Improvement (QA&CI). The KWS branch ensures the content of the knowledge base, the City's centralized source of information, is accurate and up-to-date. The QA&CI branch is responsible for 3-1-1's quality assurance programs. It tracks and monitor clients' satisfaction through "client surveys" and monitors the accuracy and completeness of the information provided by phone through a "listen-in" program.

Audit Objectives

The objectives of the audit were to:

- Assess the adequacy of the processes used to notify individual Councillors of emerging issues within their ward.

- Assess the adequacy of the performance management system, including quality assurance.

- Assess the adequacy of the management of wait times; and, timeliness of email responses.

- Assess the accuracy of information provided by the 3-1-1 Contact Centre.

- Assess if 3-1-1 utilizes its resources efficiently and effectively to provide optimal customer-service.

- Assess the implementation of support systems (i.e., CSM or Lagan and WFO or Verint) as they pertain to 3-1-1.

- Assess the status of implementation of the 2007 Audit of the 3-1-1 Contact Centre recommendation (incomplete during the 2009 Follow-Up Audit) "That 3-1-1 management follow through on Council's direction to investigate the possibility of outsourcing the 3-1-1 Contact Centre."

Summary of Key Findings

During the audit, we noted the following findings related to:

- Notification to Councillors of emerging issues;

- Quality Assurance process;

- Service level for phone calls: calculation and reporting;

- Reporting the number of requests for service (Service Requests);

- Service level for email requests;

- Wait time management;

- Accuracy of articles in the knowledge base – the City's centralized source of information;

- Accuracy of the information provided to callers by the 3-1-1 agents;

- Resource (staff) utilization;

- Workforce Optimization software (WFO) and Citizen Services Management (CSM) system implementation;

- The possibility of outsourcing the 3-1-1 Contact Centre; and

- Occupational Health and Safety.

Notification to Councillors of emerging issues

- Practices and Standard Operating Procedures (SOP's) in three operating departments relating to notifying Councillors of emerging issues in their wards are clear, consistent and adequate, if adhered to. However, Drinking Water

Service's notification SOPs are not being adhered to for planned outages, a situation that is being remedied.

- The Office of the Emergency Management's role in notifying Councillors of issues is clearly set out in program and procedure documents.

- Currently the information shared with the Councillors comes daily via Councillor Consent reports and is filtered depending if the caller has agreed to share the service request (SR) information with the Councillor or not. There are opportunities to use the Open Data database for notifications as it contains complete information on all the SRs without personal information of the requestor.

- 3-1-1 agents do not consistently ask callers for their email address and whether the information from the SR can be shared with their Councillor, decreasing the number of the SRs that are shared via Councillor Consent reports.

Quality Assurance Process

- Overall, most callers are satisfied with the 3-1-1 service as indicated by the surveys taken by callers after the end of the call (IVR survey, offered to every second caller). However, there are periods when callers are less satisfied and this information is not currently reported at ServiceOttawa's departmental management team meetings.

- The quality assurance process in place is adequate, where the QA analysts are listening and scoring calls taken by different agents. However, the call selection for the "listen-in" process is random with no weighting given to agents' past performance.

Service level for phone calls: calculation and reporting

- 3-1-1's service level target is to answer 80% of calls within 120 seconds. This service target has not been formally approved and no support was provided for why this service level was selected.

- Calls that are abandoned (hang-ups) within the first 120 seconds are treated as answered calls in the Semi-Annual Performance Report to Council, providing a potentially misleading view of performance. Abandoned calls are not otherwise disclosed or analyzed in the service level reports to Council.

Reporting of total number of requests for service

- The process for compiling the SR information presented in the Semi-Annual Performance Report to Council is manual, time-consuming and prone to human error as it involves combining data from multiple systems. As a result the figures presented in the Semi-Annual Performance Report to Council with regards to the service requests contained a number of small errors.

Service level for email requests

- There are 2 different service levels for emails, one for the general public (5 business days) and another for the Councillors (2 business hours). Neither of these service levels have been approved and they were not regularly achieved in 2014.

- The vast majority emails are responded to during business hours and are not assigned to agents working shifts outside of business hours. Agents working outside business hours may have the capacity to respond to more emails and improve the response times.

Wait time management

Wait times impact on customer satisfaction and service level performance. During our 12 "listen-in" sessions, wait times varied from 0 to 16 minutes. 3-1-1 has no consistent practices nor written procedures with thresholds to manage the wait times on a continuous basis to ensure consistency of response.

Accuracy of articles in the knowledge base– the City's centralized source of information

- The knowledge base is the repository for the roughly 1,900 articles that are the primary source of information for 3-1-1 agents. The information in knowledge base articles is reviewed for accuracy by subject matter experts and channeled through a network of staff who are Single Points of Contact (SPOCs). SPOCs are responsible to ensure that all of their applicable knowledge base articles are up-to-date and accurate. However, some of the SPOCs were given this responsibility without being provided with access to the knowledge base or being given a list of the articles they are responsible for.

- The articles in the knowledge base should be reviewed regularly to ensure they remain accurate. A sample of articles was confirmed with the SPOCs and 60% of the articles were inaccurate, not up-to-date or no longer needed, increasing the risk that 3-1-1 agents could provide the wrong answers to callers.

- Some of the articles in the knowledge base include hyperlinks to other internal or external sources, as well as the link to the article in the other official language.

Testing found that hyperlinks did not function for 14% of the information links and 8% of the language links. This increases to risk of longer calls as 3-1-1 agents need to use other sources to find the information that the caller requires.

Accuracy of the information provided to callers by 3-1-1 agents

- During our 12 "listen-in" sessions we were impressed with 3-1-1 agents' knowledge and experience as they were able to respond easily and quickly to a broad range of questions. However, perhaps as a result agents respond to most calls without accessing the knowledge base. 3-1-1 management relies on the agents accessing the knowledge base to ensure that they provide up-to-date information.

- Training of agents was reviewed and no issues were found. All new agents had taken the core training program, all agents were receiving coaching sessions and mandatory training relating to accessibility, health and safety, WHMIS, etc. was complete.

- Some callers need to be transferred to the Social Services or the Tax and Water Billing and Collection call centre. However, 6% of all calls were transferred back to the IVR (Interactive Voice Response) instead of directly to these other lines. Once transferred to the IVR, the caller has to select the applicable line. This process results in a longer call for the caller but gives the agent a ten-second "break" between calls.

Resource (staff) utilization

- 3-1-1 was not fully staffed in 2014 with an FTE vacancy rate of 10%. This may have been one of the reasons that the Client Operations branch overspent its overtime budget in 2014. It may also have been a factor in why 3-1-1 employees took more sick leave days than the City of Ottawa average and had 14% employee turnover.

- The Contact Centre had one unbudgeted casual position in 2014, however during the year casual employees collectively worked hours that were equivalent to 3.7 FTEs. Therefore the use of casual agents is not accurately reflected in the 3-1-1's financial budget.

- The agents working the overnight shift (11pm to 7am) may be underutilized. They answer fewer calls per hour than the day shift, respond to few emails and only process a limited number of death registrations.

Workforce Optimization software (WFO) and Citizen Services Management (CSM) system implementation

- The contract for the CSM system and implementation was competitively tendered and properly authorized as the contract was signed in accordance with the City Purchasing By-law.

- We identified opportunities to improve the CSM system. The system provides only an "Open" or "Closed" status on SRs. This limited information may be insufficient for a resident following up an SR. In addition system reliability can be improved as it was observed that at times the system slows down and stops responding.

- The business case used to justify the WFO project was not adequately compelling to justify the project. The benefits set out in the business case were either "soft" (increasing customer satisfaction) or potentially measurable but with no targets.

- The WFO solution was contracted via an amendment to an existing 2010 contract for the VOIP solution. There were two WFO solutions that could have worked on City's VOIP platform: the system that was implemented and a competitor's system. The rationale for selecting one product over the other was not fully disclosed in the Contract Approval Request or in the supporting Business Case.

- The WFO system implementation is almost complete; however some functionality required by 3-1-1 (agents' screen capture while they take calls) has not been fully implemented. The quality assurance process is expected to improve once this functionality is implemented. The issue delaying implementation relates to storing information from external systems on City servers and was discovered late in the project.

- Not all the benefits expected from the Workforce Management (WFM) module of the WFO system have been realized since its implementation in March 2015. The process remains manual in many aspects and factors like seniority, long-term assignments, unavailability are not taken into consideration by the software when preparing the by-weekly schedule. The WFM module is also not linked with SAP, therefore the overtime and sick leave data is still maintained manually in Excel spreadsheets.

The possibility of outsourcing the 3-1-1 Contact Centre

- The 2007 Audit of 3-1-1 recommended investigation of the possibility of outsourcing the 3-1-1 Contact Centre. This investigation has not been completed. Management plans to include it as an option in a future business case.

Occupational Health and Safety

- No occupational health and safety concerns were identified.

Recommendations and Management Responses

Recommendation 1
That ServiceOttawa department review with Councillors' Offices the replacement of the Councillor Consent report with Open Data, which is currently available and/or solicit suggestions from Councillors' Offices as to how to improve the usefulness and efficiency of the Councillor Consent report as well as topics of interest where Councillors would like more information.

Management Response
Management agrees with this recommendation.

The Councillor Consent Report was created as part of the ServiceOttawa Program to improve the sharing of important ward and city-wide information to the public. The current format of the Consent Report was designed, at that time, to be imported into the Councillors' Constituent Case management tool (ACT). As indicated by the audit, open data does not provide personal information to Councillors and as such cannot fulfill the information sharing requirement that Councillors find useful. In addition, the Consent Report is also comprised of information gathered as part of the online service request process, which does not require staff resources.

Management agrees that improvements to the open data reports currently available online and through the Councillors' Portal would be beneficial to Councillors when looking at trends in call types and volumes both in their ward and across the city. ServiceOttawa will survey Councillors and provide results back to Council on the value of the continued use of the Councillor Consent Report in Q1 2016. ServiceOttawa will also review options for making 3-1-1 open data more user friendly to meet the needs of Councillors as part of the Open Data project by Q3 2016.

Recommendation 2

That, in addition to reviewing overall aggregate results from post call satisfaction surveys, ServiceOttawa department analyze more meaningful data elements to identify periods where scores are significantly lower (e.g., weekend, overnight) and make operational changes to improve customer service and satisfaction.

Management Response

Management agrees with this recommendation.

According to the audit's findings, during 2014, callers were satisfied or very satisfied with 3-1-1 service (scoring 87%). Satisfaction scores are one of over 50 operational and strategic measures the management team looks at regularly to inform service decisions and service improvements.

ServiceOttawa will conduct a detailed analysis of post call satisfaction surveys for 2014 to determine if there are any periods where scores are significantly lower and operational improvements can generate measureable impacts on client satisfaction, by Q2 2016.

Recommendation 3

That ServiceOttawa department establish a process to select agents for quality assurance evaluations based on both past-performance and ensuring full coverage of agents.

Management Response

Management agrees with this recommendation.

The audit found that the quality assurance process is adequate and acknowledged that the team sessions used to ensure consistency, proper calibration, subjectivity, and scoring, as well as the post-call satisfaction surveys offered through the IVR is best practice.

Currently the selection of agents who are to be monitored is done randomly or is based on a request from a supervisor and is compared against a baseline quality score created at the onset of the quality program. The ServiceOttawa department will formally document the process to select agents for quality assurance based on past performance while ensuring full coverage of agents and the process for notifying Coordinators by Q1 2016.

Recommendation 4

That ServiceOttawa department conduct a detailed financial analysis of various service level standards for calls and for emails and seek formal approval from Senior Management and Council.

Management Response

Management agrees with this recommendation.

Service levels are established considering client satisfaction balanced with the financial resources available within the municipality. These service standards are targets set by the municipalities based on their resourcing, call volumes and offered services to achieve a desired satisfaction threshold.

The 3-1-1 service was established in 2005. Performance against 3-1-1's service standard has been reported to Council through the budget process and the Semi-Annual Performance Report to Council since 2006.

Being mindful of 2016 budget directions approved by Council on October 14, 2015, management will conduct a detailed financial analysis of various service level standards for calls and emails and will seek formal approval of the service level and associated budget from Senior Management and Council prior to budget in Q3 2017.

Recommendation 5

That ServiceOttawa department report to Council and Senior Management on all wait times and abandoned calls and disclose how service levels are calculated in the Semi-Annual Report to Council. In addition consult with Corporate Programs and Business Services department on what other measures would be useful to stakeholders.

Management Response

Management agrees with this recommendation.

Reporting on 3-1-1 measures was established in 2006 based on available data and Council needs at that time. Management included how service levels are calculated in the Q2/Q3 2015 Semi-Annual Report to Council and will report wait times and abandoned calls in the Semi-annual Report beginning in Q1 2017. Management will also consult with the Corporate Programs and Business Services department as to what other 3-1-1 related measures would be useful to stakeholders.

Recommendation 6

That ServiceOttawa department conduct a full analysis of abandoned calls, within and beyond the service level threshold, to support strong decision-making around resourcing and service level standards critical to the Contact Centre.

Management Response

Management agrees with this recommendation.

ServiceOttawa will conduct an analysis of abandoned calls within and beyond the service level threshold using available data by Q1 2016.

Recommendation 7

That ServiceOttawa department verify the accuracy of information provided to Council and that documentation of management's review and approval be retained.

Management Response

Management agrees with this recommendation.

The Semi-Annual Report to Council was developed in 2006 using multiple systems and manual processes. With the reduced use of legacy systems, ServiceOttawa will now report data from an identified single database source which will be provided to Council in future reports. Furthermore, as of Q3 2015, the source data, and management review and approval are being retained. Management considers this recommendation complete.

Recommendation 8

That ServiceOttawa department in collaboration with Information Technology Services investigate improvement to systems and processes used for handling 3-1-1 emails.

Management Response

Management agrees with this recommendation.

Service requests received via email are now being processed in the Citizen Services Management (CSM) system. While 3-1-1 emails continue to be used by a very small segment of users, ServiceOttawa will forward the improvements related to email handling as user requirements to Information Technology Services (ITS), to investigate further email improvements that can be achieved through an upgrade of the current CSM system. These user requirements will be submitted to ITS by Q1 2016.

Recommendation 9

That ServiceOttawa department report on email service levels as part of the Semi-Annual Performance Report to Council.

Management Response

Management agrees with this recommendation.

Management recognizes that email service level is an important measure of client experience and as such, management agrees that email service level should be set and reported as part of the Semi-Annual Report to Council. Management will report the service level of 311@ottawa.ca in the Semi-Annual Report beginning in Q1 2017.

ServiceOttawa has established a specific internal operating method to support Councillor constituent work via an email channel separate from 311@ottawa.ca. As this method is an internal organizational process it will not be reported in the public Semi-Annual Report to Council.

Recommendation 10

That ServiceOttawa department conduct benchmarking with comparable Canadian municipalities in order to compare cost per call, cost per email, and other relevant measures to gain an independent perspective on performance and identify specific areas for improvement.

Management Response

Management agrees with this recommendation.

The current process to compare metrics across municipalities is done through the Ontario Municipal Benchmarking Initiative (OMBI). At present, 3-1-1 services are not part of the reporting through OMBI. By Q1 2016, management will recommend to the Corporate Programs and Business Services department that 3-1-1 performance metrics be considered as part of the OMBI program.

Recommendation 11

That ServiceOttawa department determine the most cost efficient way to meet its email performance standards. Consider utilizing agents working periods with lower call volumes and training staff where required.

Management Response

Management agrees with this recommendation.

ServiceOttawa recognizes that the email channel continues to be a service channel for a very small portion of 3-1-1 service users. With the implementation of the Workforce Management tool in the spring of 2015, management has the ability to definitively identify times of day and days in a week that can accommodate email processing. ServiceOttawa will develop a procedure that will direct emails to be processed during periods of lower call volumes by Q3 2016.

Recommendation 12

That ServiceOttawa department establish a procedure for decreasing the wait times and assigning available Client Service Representatives to the phone during periods of high call volume.

Management Response

Management agrees with this recommendation.

Call volumes at the 3-1-1 Call Centre are impacted by weather events such as snowfall and wind, seasonal trends such as spring thaws and program registration processes, and service delivery changes. Wait times on the phone are managed through the creation of a work schedule that considers daily and seasonal trends year-over-year and the financial envelope provided for the Client Operations Branch. The schedule is created using the new Workforce Management tool that was implemented in March 2015 based on historical and seasonal call trends. Decisions on managing daily wait times are made in real time based on the experience and judgement of the Senior Agents, Coordinators and the Branch Manager.

Management will establish a procedure that includes a set of criteria to guide the judgement of 3-1-1 management in managing wait times and assigning Client Service Representatives during periods of unanticipated high call volume by Q2 2016.

Recommendation 13

That ServiceOttawa department provide each SPOC with access to the knowledge base and advise them of every KBA related to the department for which they have responsibility.

Management Response

Management agrees with this recommendation.

The knowledge base was part of the CSM development and implementation in 2011/2012 through the ServiceOttawa Program. Given the extensive scope of the activities required to create an enterprise knowledge base, the initial development consisted of converting existing sources of information directly into the knowledge base. The departmental responsibility for ensuring that articles are accurate and up to date rests with the department's identified point of contact (SPOC). Each SPOC will be provided a list of articles for which they are responsible and access to the knowledge base by Q4 2015.

Recommendation 14

That ServiceOttawa department ensure that departments provide KWS with English and French versions of each KBA so they can be uploaded simultaneously or within a very brief timeframe.

Management Response

Management agrees with this recommendation.

Primary responsibility for ensuring that articles are accurate and up-to-date rests with the department's identified point of contact (SPOC). ServiceOttawa will send a formal reminder to all SPOCs and department heads to ensure that they post articles in both official languages. ServiceOttawa will request that department heads confirm in writing that all knowledge articles are posted in French and English and are checked as part of their annual review process. This work will be completed by Q4 2015.

Recommendation 15

That ServiceOttawa provide ongoing regular information sessions or other effective methods to increase awareness of the knowledge base and any other access available to Councillors' Offices and/or City employees so they can obtain information directly.

Management Response

Management agrees with this recommendation.

ServiceOttawa will develop a knowledge base e-learning module that will be posted on Ozone and the Councillors' Portal. In addition, a briefing note will be added to the orientation materials for use when training new staff in Councillors' offices by Q3 2016.

Recommendation 16

That ServiceOttawa review current access and usage of the knowledge base and reassign access where appropriate.

Management Response

Management agrees with this recommendation.

ServiceOttawa is working with Information Technology Services to investigate improvements through the CSM upgrade project, which will implement a new knowledge base tool. Roles, responsibilities and access will be reviewed with each operating department by Q4 2016.

Recommendation 17

That ServiceOttawa department implement a formal process to review each KBA at least annually, as per the Writing Guideline for KBAs.

Management Response

Management agrees with this recommendation.

Each SPOC will be provided a list of articles they are responsible for so that they can review and revise as required. ServiceOttawa will implement a formal annual review procedure by Q2 2016.

Recommendation 18

That ServiceOttawa department further automate the life-cycle management of the KBAs, including but not limited to, last reviewed date, assigning SPOCs and SMEs within the system, as well as system generated reports or other mechanisms to identify KBAs for review.

Management Response

Management agrees with this recommendation.

ServiceOttawa will include the ability to automate the review notification process as a user requirement to Information Technology Services as part of the CSM upgrade project and, will provide departments with the required access to manage their own knowledge articles by Q4 2016.

Recommendation 19

That ServiceOttawa department investigate the CSM system for any functionality that would allow KBAs to be more easily uploaded to the knowledge base and not cause hyperlinks to fail.

Management Response

Management agrees with this recommendation.

ServiceOttawa will submit as a requirement, the ability to more easily upload articles to the knowledge base without breaking hyperlinks to Information Technology Services, who will work with the vendor to determine whether the upgraded version of CSM will meet the requirements. This will be completed as part of the CSM upgrade project by Q4 2016.

Recommendation 20

That ServiceOttawa department ensure the practice of re-transferring callers to the IVR is discontinued.

Management Response

Management agrees with this recommendation.

The audit identified specific incidents of transferring calls back to the IVR instead of transferring directly to the appropriate department. Management from the 3-1-1 Contact Centre have advised staff through a written communiqué that this transfer practice is not the appropriate transfer procedure within the call centre. Recent checks by the QA&CI branch have shown that this practice is no longer an issue. QA&CI will continue to monitor for this practice through their "listening in" program. Management considers this recommendation complete.

Recommendation 21

That ServiceOttawa department revisit the viability of allowing agents to access their WFM schedule remotely.

Management Response

Management agrees with this recommendation.

Since the time of the audit, 3-1-1 has implemented the following functionality: forecasting schedules based on historical call volumes and trends; building schedules based on historical call trend identifying long and short term unavailability of staff and implementing agents' ability to book themselves off using the Verint tool. Currently staff cannot access this schedule remotely due to a security concern cited by the ITS department. ServiceOttawa will request reconsideration of the current decision by Q1 2016.

Recommendation 22

That ServiceOttawa department investigate if the WFM currently has the functionality required, and start using this (i.e., algorithm to populate lunch and breaks and flags to indicate unavailable agents), or evaluate the purchase of new functionality to automate processes (where benefits outweigh the costs).

Management Response

Management agrees with this recommendation.

ServiceOttawa implemented the Workforce Management tool in March 2015 and trained a new Workforce Management Analyst. Now that WFM has been implemented, is functional and the Workforce Management Analyst has used the tool for six months, ServiceOttawa will build the business rules required to automatically assign breaks and lunches to agents by Q3 2016.

Recommendation 23

That ServiceOttawa department ensure that agents ask each caller for their email address and approval to share information with their ward Councillor; or, that they revisit the need for this report with Councillors, in conjunction with recommendation 1.

Management Response

Management agrees with this recommendation.

Management, through a formal communiqué to agents, has reiterated the responsibility to ask each caller who is placing a service request if they wish to share information with the Councillor. Pending confirmation of the usefulness of the Council Consent Report, as per work to be done related to Recommendation 1, Quality Assurance will continue to monitor whether consent requests are being made. Management considers this recommendation complete.

Recommendation 24

That ServiceOttawa department have an authorized individual document their approval of overtime in advance, and create and implement a 3-1-1 overtime procedure.

Management Response

Management agrees with this recommendation.

Client Operations branch has a combined overtime budget (3-1-1 and Client Service Centres) of $38,000 per year. For 3-1-1, overtime is used to address urgent situations that impact service level. The overall compensation budget is managed through the creation of a work schedule based on available funded hours. The agent schedule is developed using the WFM tool and approved by the Coordinator in 3-1-1 every two weeks. The schedule is then reviewed daily by the Workforce Management Analyst and if necessary, the Coordinator of 3-1-1. The Coordinator of 3-1-1 determines if shifts will be filled (i.e. due to staff absence) or if additional shifts will be added (i.e. due to a weather event creating sustained high call volumes and significant degradation of service level) and provides verbal approval.

ServiceOttawa will develop a departmental overtime procedure to ensure there is documentation in accordance with corporate policy by Q1 2016.

Recommendation 25

That ServiceOttawa department complete a full review of their organizational structure and staffing strategies to ensure the most cost effective and efficient

methods are used to deliver service. This would include capacity modelling and costing of staff mix alternatives in addition to on-going scheduling decisions.

Management Response

Management agrees with this recommendation.

Since the time of the audit, ServiceOttawa has used the new Workforce Management tool to develop the optimal schedule of FT, PT and casual employees based on historical call volumes and seasonal trends to meet the service level. Management is currently in the process of developing a staffing plan and management structure to support the schedule to the degree possible given its current FTE complement.

ServiceOttawa will review capacity using the workforce management technology to identify required hours of service and a costing to achieve the most efficient staff utilization within the terms and conditions of the collective agreement by Q2 2016.

Recommendation 26

That ServiceOttawa department adjust the number of unbudgeted FTEs within the casual pool to reflect more closely actual operational requirements.

Management Response

Management agrees with this recommendation.

Since the time of the audit, ServiceOttawa has used the new Workforce Management tool to develop the optimal schedule of FT, PT and casual employees based on historical call volumes and seasonal trends to meet the service level. Management is currently in the process of developing a staffing plan and management structure to support the schedule to the degree possible given its current FTE complement.

ServiceOttawa will adjust the number of unbudgeted FTEs within the casual pool to reflect more closely actual operational requirements identified by the optimal schedule given 3-1-1's current FTE complement by Q2 2016.

Recommendation 27

That ServiceOttawa department review the hours worked by casual agents and determine if, for some, this creates a part-time employee relationship and adjust their scheduling practices accordingly.

Management Response

Management agrees with this recommendation.

Until March 2015, development and management of the schedule was done using Excel spreadsheets. Since the time of the audit, ServiceOttawa has used the new Workforce Management tool to develop the optimal schedule of FT, PT and casual employees based on historical call volumes and seasonal trends to meet the service level. Management is currently in the process of developing a staffing plan and management structure to support the schedule to the degree possible given its current FTE complement. As part of this exercise the hours worked by casual agents will be reviewed and if required scheduling practices will be adjusted by Q2 2016.

Recommendation 28

That ServiceOttawa department conduct an analysis of workload during the evening and overnight shifts to determine if there is idle capacity and consider assigning additional workload.

Management Response

Management agrees with this recommendation.

Since the time of the audit, ServiceOttawa has used the new Workforce Management tool to develop the optimal schedule of FT, PT and casual employees based on historical call volumes and seasonal trends to meet the service level. Management is currently in the process of developing a staffing plan and management structure to support the schedule to the degree possible given its current FTE complement and will assign additional workload (such as responding to emails) by Q2 2016.

Recommendation 29

That ServiceOttawa in collaboration with Information Technology Services investigate and address if the imposed limit of 10 results for searches is still required; the "find" function within a knowledge base article causes the system to stop responding (freeze); and, the CSM system slows down and stops responding (freezes).

Management Response

Management agrees with this recommendation.

ServiceOttawa will forward the deficiencies identified by the audit: 1) Knowledge base search limit, 2) freezing and, 3) the "find" function to Information Technology Services, to confirm if these deficiencies will be addressed as part of the CSM upgrade by Q1 2016.

Recommendation 30

That ServiceOttawa department in collaboration with operating departments investigate providing additional detailed status information in the CSM system.

Management Response

Management agrees with this recommendation.

Service status is an important communication method to the public on service requests. Service status reporting was examined during the implementation of the CSM in the ServiceOttawa Program. Enterprise statuses were not implemented in the ServiceOttawa Program due to the technical and business transformation complexity in standardizing status reporting and integrating with multiple back end systems.

Management will refer the status investigation done to date through the ServiceOttawa Program to the Senior Management Committee for further consideration as part of the ServiceOttawa Program close-out process by Q2 2016.

Recommendation 31

That the City document and disclose all key decisions and assumptions in Contract Approval Requests.

Management Response

Management agrees with this recommendation.

Standard procurement practice, as per the Procurement By-law, was followed in that Verint was procured through an amendment to an existing competitively completed VoIP contract. Included in the Contract Approval Request (CAR) was an explanation for why the extension of the VoIP contract was the appropriate procurement vehicle and the rationale for the selection of Verint as the business solution. Accompanying the CAR was a business case outlining rationale for the WFO but not how the specific business requirements were achieved by the identified vendor. The CAR was approved by the ServiceOttawa Program Director, the Executive sponsor, Steering Committee Chair and Deputy City Manager of City Operations as well as appropriate resources within the Procurement branch. Management considers this recommendation complete.

Recommendation 32

That ServiceOttawa department implement the recommendations from the Communication Channel Integration Project Close-out report that are applicable to its on-going operations and current projects.

Management Response

Management agrees with this recommendation.

The CCI project was part of the ServiceOttawa program and the close-out report is pending final approval. Should there be recommendations that are directed to ServiceOttawa as part of the approved close-out report, they will be implemented accordingly.

Recommendation 33

That City Manager's Office update the City's project management methodology to require a review of all corporate applicable previous lessons learned in the initiation of all new projects.

Management Response

Management agrees with this recommendation.

As part of the City's project management methodology, staff are required to complete a set of mandatory project deliverables, one of which is a Project Close-out Report. One element of this report is the documentation of lessons learned from the project, including the capture of any formal recommendations from project post-mortem or lessons learned sessions. The City also has a Project Management Community of Practice, which has membership from all City departments, and regularly uses the forum to share knowledge and project successes, challenges and lessons.

The Corporate Programs and Business Services department will update the City's project management methodology by Q2 2016 to require a review of all corporate applicable previous lessons learned in the initiation of all new projects.

Recommendation 34

That ServiceOttawa department investigate the possibility of outsourcing the 3-1-1 Contact Centre.

Management Response

Management agrees with this recommendation.

Within Council's Strategic Plan for 2015-2018, Council has identified Phone and Counter service delivery as a priority. ServiceOttawa will explore alternative service delivery methods, one of which will be outsourcing, as part of a business case. Options will be recommended to Senior Management and Council as applicable based on findings by ServiceOttawa Management in the business case in Q4 2016.

Potential savings

There were no quantifiable potential savings identified during the audit. Recommendations to automate a number of processes could create efficiencies for 3-1-1 operations.

Conclusion

The 3-1-1 Contact Centre provides the residents and elected officials with a valuable service and information about the City's programs and procedures. 3-1-1 agents are courteous, knowledgeable and service-oriented.

While overall 3-1-1 clients are satisfied with the service that they receive, there are opportunities to better support the agents serving them. The information in the knowledge base that agents rely upon could be more up-to-date and accurate and their scheduling could be improved.

We identified opportunities to improve the reporting to Management, Senior Management and Council in the areas of wait times, abandoned calls and email processing. The City's policies and procedures related to notifying Councillors of emerging issues in their wards are clear, consistent and generally adequate.

There are also opportunities to further streamline processes by improving two key systems used by 3-1-1 that were purchased and implemented in 2011 (CSM) and 2013 (WFO). Lastly we found that management has not yet investigated the possibility of outsourcing the 3-1-1 Contact Centre as recommended in our 2007 audit, however they plan to include this option in an upcoming business case.

Acknowledgement

We wish to acknowledge our appreciation for the cooperation and assistance afforded the audit team by management.

The section that follows is the detailed audit report.

Detailed audit report

Introduction

The Audit of 3-1-1 Contact Centre was included in the 2014 Audit Plan of the Office of the Auditor General (OAG), approved by Council on March 26, 2014.

Background

The 3-1-1 Contact Centre (3-1-1) is part of the Client Operations branch of the ServiceOttawa department. In 2014, 3-1-1 created approximately 250,000 service requests received by telephone and e-mail and, answered 500,000 calls from both internal and external clients.

3-1-1 operated with 30.4 FTEs[1] (agents, senior agents, coordinators) and an operating budget of $2.4 million in 2014.[2]

3-1-1 is the City's centralized contact centre. It is the primary, single point of access to municipal programs and services for residents, businesses and visitors. It provides information to the public, to other levels of government, to City staff and elected officials on a broad range of City programs, services, policies, procedures, permits, fee structures, etc. 3-1-1 is open 6 days a week for all types of inquiries and services (by telephone and by e-mail), and 24/7 for urgent requests (e.g., traffic lights not functioning, broken water mains and By-law complaints).

3-1-1 is supported by two ServiceOttawa department branches; Knowledge and Web Services (KWS) and Quality Assurance and Continuous Improvement (QA&CI).

The KWS branch is responsible for the knowledge base, in addition to Ottawa.ca, which are the City's centralized repository and primary source of information available to 3-1-1 agents (as well as non-3-1-1 counter staff). This responsibility includes; responding to queries; and ensuring that content is accurate, up-to-date and managed in accordance with municipal bilingualism policies.

The Quality Assurance and Continuous Improvement branch is responsible for 3-1-1's quality assurance programs. Specifically, it tracks and monitors client satisfaction through "client surveys". The branch also monitors the accuracy and completeness of information provided through a "listen-in" program which ultimately supports customer-service coaching and training of 3-1-1 agents.

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[1] Decrease of 1 FTE compared to 2013
[2] In January 2015 Client Operations Branch renamed 3-1-1 agents: "Client Service Agent – 40 hours". The generic title "3-1-1 Call Centre agent" is used throughout the audit report to denote Call Centre employees who provide information by telephone or by email.

Audit Objectives

The overall objective of this audit is to provide an independent assessment of the efficiency and effectiveness of 3-1-1's service delivery to citizens, operational departments and elected officials. The audit's seven specific objectives are as follows:

Audit Objective No. 1

Assess the adequacy of the processes to notify individual Councillors of emerging issues within their ward.

Criteria:

- Policies, procedures and guidelines within the City for notifying Councillors of emerging issue(s) within their ward, are adequate.
- Practices at 3-1-1 and operating departments/branches to promptly notify individual ward Councillors of emerging issue(s) in their ward, are adequate.

Audit Objective No. 2

Assess the adequacy of the performance management system, including quality assurance.

Criteria:

- Performance management increases the efficiency of customer-service by facilitating data driven performance management, providing insight on performance through regular reports to Council.
- Reporting to Council, Senior Management and Operational Management is accurate and provides the most relevant information for decision-making and to improve customer-service and client satisfaction.
- Quality assurance program monitors interactions between callers and agents for accuracy, understandability and professionalism.
- Systems are in place to gather data on performance.
- Relevant performance service level standards (e.g., calls and emails) are approved and communicated to Council and stakeholders.

Audit Objective No. 3

Assess the adequacy of the management of wait times; and, timeliness of email responses.

Criteria:

- Practices, tools and procedures to monitor and manage wait times and resources are adequate.

- 3-1-1 provides timely information and service requests by phone and email to internal and external clients.

Audit Objective No. 4

Assess the accuracy of information provided by the 3-1-1 Contact Centre.

Criteria:

- The knowledge base is accurate, complete and satisfies the information requirement of 3-1-1 agents, elected officials, citizens, and operating departments.
- The processes to create Knowledge Base Articles (KBAs), and continuously review and update the knowledge base content are effective.
- 3-1-1 agents provide accurate information and complete service requests by telephone or by email to internal and external clients.

Audit Objective No. 5

Assess if 3-1-1 utilizes its resources efficiently and effectively to provide optimal customer-service.

Criteria:

- 3-1-1 operations are efficient and effective.
- 3-1-1 workforce management tools and practices are adequate.

Audit Objective No. 6

Assess the implementation of support systems (i.e., CSM or Lagan and WFO or Verint) as they pertain to 3-1-1.

Criteria:

- The justifications for the CSM system and WFO system projects were well documented and compelling and the procurements were properly authorized.
- The CSM system provides 3-1-1 with performance information and other required functionality.
- The WFO system provides 3-1-1 with required functionality.

Audit Objective No. 7

Assess the status of implementation of the 2007 Audit of the 3-1-1 Contact Centre recommendation (incomplete during the 2009 Follow-Up Audit) "That 3-1-1 management follow through on Council's direction to investigate the possibility of outsourcing the 3-1-1 Contact Centre."

Criteria:

- Recommendations agreed to by Management are duly implemented and results have been accurately reported back to Council.

Audit Scope and Approach

The scope of the audit included the 3-1-1 Contact Centre and its key systems as well as notification of Councillors of emerging issues in their ward. The period audited covered January 2014 to June 2015.

The audit did not include an assessment of regulatory compliance with legislative and MFIPPA requirements.

The audit approach included examination of relevant policies, procedures, reports and other documentation. Interviews were conducted with 3-1-1 employees and management; as well as with operating departments' employees and four Councillors' Offices. Observations during sit-ins with 3-1-1 agents and during listen-ins of agents' call recordings supplemented data analysis.

Detailed Findings, Observations and Recommendations

Audit Objective No. 1:

Assess the adequacy of the processes to notify individual Councillors of emerging issues within their ward.

3-1-1 is frequently the first point of contact for citizens to notify the City of emerging issues. With respect to the notification process in the City's Office of Emergency Management (OEM) plan, the Contact Centre's responsibility is limited to taking down the information and providing it to operating departments. Operating departments and, during an emergency, OEM are responsible to duly notify Councillors and Senior Management although 3-1-1 can later be involved in disseminating information.

1.1 Agents follow the 3-1-1 Call Escalation procedure that requires them not to directly contact Councillors.

In March 2015, the "3-1-1 Call Escalation to Management Team for Emerging Issues" was revised and has now been incorporated into ServiceOttawa's 2015 Emergency Management Plan, as Appendix A: ServiceOttawa Escalation Procedures. 3-1-1 management and staff indicated that the former process document was not well known.

The process for any normal request for service requires an agent to create a service request in the CSM system which informs the operating department, who in turn, will initiate the necessary action.

However, for non-standard situations that have the potential to escalate or worsen, if there is no senior agent on duty, the agent should contact the On-Call coordinator or the manager, Client Operations. Their role (coordinator/manager) is to assess if the situation is normal or abnormal. For abnormal situations, the agent is required to complete a Call Escalation Service request with the necessary detail.

The key difference between the former and new processes is that the former process required that the completed "Call Escalation Report" be distributed by agents to the 3-1-1 On-call Supervisor and if required to the Office of Emergency Management (OEM) Duty Officer and Corporate Communications. The new process only requires agents to notify the senior agent, or on-call coordinator or the manager, Client Operations to obtain their assessment of the situation (e.g., deemed abnormal) and to notify other 3-1-1 agents via an internal email account.

Agents are specifically reminded not to contact Councillors directly unless asked to do so by the 3-1-1 management team. As per the "*3-1-1 Call Escalation to Management Team For Emerging Issues*" process, should senior management wish to contact a Councillor through 3-1-1, the agent is directed to take their name and phone number, contact the Councillor immediately and ask them to return the senior manager's call.

The new process is consistent with City's Corporate Communications Strategy in that incidents assessed as having a localized impact are handled by operating departments. The strategy also sets out that for emergency communications[3], operating departments are responsible for contacting Councillors and senior management (within the first 15 minutes to 1 hour), and that after one hour, notification is provided by OEM and Corporate Communications. The responsibility to contact Councillors rests with operating departments as they have access to more comprehensive contextual information.

During 2014, 3-1-1 did not follow their process of completing "Call Escalation Forms". 3-1-1 management indicated that emails were sent, instead of "Call Escalation Forms" during 2014 and provided three samples. The emails provided demonstrated the communication between 3-1-1, operating departments and the Office of Emergency Management[4].

The emails also demonstrated the volume and rapidity of communication between parties. Given this rapid communication, it is likely that the page-long Call Escalation Forms are seldom, if ever, completed in full and used in real-time. During an "emerging issue", communication between 3-1-1 agents, coordinator, operating departments and

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[3] Appendix E: Emergency Communications Tactical Rollout
[4] OEM was involved in two of the three examples.

outside concerned parties occur very quickly. In one of the emails provided, a total of 14 messages were exchanged in less than 30 minutes.

During sit-ins, most agents indicated that they would escalate any emerging issues to their coordinator or emergency after-hours contact as per the 3-1-1 procedure.

Although email was used rather than a Call Escalation Form completed, 3-1-1 has a procedure to deal with escalating calls relating to emerging issues to 3-1-1 management, which is well understood by the vast majority of agents.

1.2 Operating departments' practices and Standard Operating Procedures (SOPs) relating to notifying Councillors of emerging issues in their wards are clear, consistent and adequate, if adhered to.

The City's processes and procedures clearly set out that operating departments are responsible for notifying Councillors of emerging issues within their ward, and not 3-1-1. The practices and Standard Operating Procedures (SOPs) related to notifying Councillors of emerging issues in their wards were reviewed for three operating departments: Traffic Services, Roads Services and Drinking Water Services.

Two of them, Traffic Services and Drinking Water Services had an SOP which addressed outgoing notifications, including the notification of Councillors. If followed, these SOPs would be adequate to notify Councillors. Management in the Traffic Services and Drinking Water Services branches estimated sending emails on 4,000 and 250 events per year respectively, not including updates on these events. Both branches were found to distribute a large volume of notification emails to many recipients, including Councillors whose wards were impacted. The email distribution lists included Councillors and were consistent with their SOPs.

While Roads Services did not have an SOP, they indicated having a relatively low volume of events requiring notification. The branch estimated that they would have 20 to 25 events per year where they would notify Councillors, such as where a street unexpectedly could not be plowed due a parked car. Road Services branch also notifies Councillors, as part of their normal course of business and not as an emerging issue, of overnight parking bans in the winter and street sweeping in the spring.

Councillors' Offices interviewed were generally satisfied with the email notification process, although it was noted that the City's information is at times superseded by social media and other sources.

Testing did not include verification of how well these procedures were functioning as it was beyond the scope of the audit. Nonetheless, it was noted that a Councillors' Office

reported not receiving notifications of a repair to a water main, on multiple occasions, which was found to be inconsistent with Drinking Water Service's SOP. The cause of this may be that although the SOP refers to both planned and unplanned events, according to the Environmental Services department, workflow processes and staff training for notification only cover unplanned events and do not extend to planned events. The Environmental Services department states that this is being remedied.

1.3 The Office of Emergency Management's role in notifying Councillors of emerging issues is clearly set out in program and procedure documents.

The Office of Emergency Management (OEM) is part of the Security and Emergency Management branch. The role of the OEM in notifying Councillors of events is set out in the City's *Emergency Management Program*. The *Emergency Management Plan*, which is required to be updated annually as part of the program is available on the City's Intranet and was last updated November 28, 2014. Under this *Plan*, there are four levels of response escalation for incidents:

- Normal

- Enhanced Operations

- Activated Operations

- State of Emergency

The program includes the criteria for each of these levels.

The details regarding OEM'S notification process are set out in the Security and Emergency Management branch's *Senior Management Notification* procedure. Per the procedure, Security and Emergency Management's "Corporate Duty Officer" provides senior management and elected officials with appropriate information regarding City activities during <u>enhanced</u> and <u>activated</u> operations.

In March 2015 the Security and Emergency Management branch changed its *Senior Management Notification* procedure regarding the notification of Councillors. Whereas the previous April 2014 procedure was to notify the committee chairs and "Local Councillors as appropriate", the new procedure is to notify all Councillors of the incident.

OEM provided a list of the 12 emergencies/events that occurred in 2014. This list detailed the Councillors that were notified via email; when the notification occurred; and, when additional updates were provided. The Councillors identified in the notification were reviewed and found to be consistent with the 2014 procedure.

1.4   Opportunities exist to improve the City's notification mechanisms to individual Councillors of emerging issues in their ward.

The Councillor Consent report is an additional mechanism which provides Councillors with information relating to 3-1-1 calls concerning their ward. As discussed later in Section 5.2, when agents open a service request, they are required to ask the caller for their approval to share their information with their Councillor and to read a privacy statement to the caller.

Councillor Consent reports are automatically generated from the City's Citizen Services Management (CSM) system and emailed each morning to each Councillor's Office. Each report provides information related to the previous day's service requests (SRs).

Currently, the CSM report is not formatted making it difficult to use. The report can provide Councillors with service request (SR) information relating to services / issues in their ward where the caller agreed to share that information. While detailed information relating to "unusual" service requests[5] can be obtained by inputting the SR number and caller's email address in the CSM system, few Councillors' Offices were aware of this functionality. One Councillor's Office expressed interest in obtaining detailed service request information.

Another forum for identifying emerging issues takes place at Corporate Communication's daily stand up meeting. When a relevant issue is identified, a *Daily Bulletin,* including key facts, is issued to Mayor and Council. As a regular participant at the daily stand up meeting, ServiceOttawa reports on emerging issues identified from its various channels, including 3-1-1.

Councillors' Offices raised noise complaints (for Councillor approved events); and, laneway widening complaints as issues of concern to them.

Councillors are involved in the approval process for local requests for noise by-law exemptions in their ward; typically pertaining to parties and similar events that are planned to continue past 11:00 pm. Councillors' Offices indicated that when 3-1-1 are advised of noise complaints about these functions, it would be of interest to them to be advised on the number of complaints, as this could influence whether or not approval for the same event would be provided the following year. However, if the agent has not obtained the caller's approval, the information will not be captured on the Councillor Consent report.

Open Data Ottawa is currently available to Councillors' Offices and the public, which provides Monthly Service Request Submissions that can by filtered by ward. This allows

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[5] "Unusual service requests" refers to ones that are not routine requests such as blue bin replacement.

the ability for Councillors' staff to have access to this information whenever they need it. It provides complete information on all Service Request Submissions in a ward as opposed to the limited amount of Service Requests where callers agree to share their personal information with their Councillor. What is missing from Open Data is the personal information of the requestor, i.e. name, address and email, etc. The Municipal Freedom of Information and Protection of Privacy Act (MFIPPA) provisions prevent all the details related to calls taken on these items from being shared with Councillors without prior consent.

The use of self-service Open Data in replacement of the Councillor Consent report would improve the efficiency of 3-1-1 in two ways; first by removing the additional time needed by agents to request personal data be shared and subsequently reading the script that follows; and second, it would eliminate the creation and distribution of the Councillor Consent reports.

Recommendation 1

That ServiceOttawa department review with Councillors' Offices the replacement of the Councillor Consent report with Open Data, which is currently available and/or solicit suggestions from Councillors' Offices as to how to improve the usefulness and efficiency of the Councillor Consent report as well as topics of interest where Councillors would like more information.

Management Response

Management agrees with this recommendation.

The Councillor Consent Report was created as part of the ServiceOttawa Program to improve the sharing of important ward and city-wide information to the public. The current format of the Consent Report was designed, at that time, to be imported into the Councillors' Constituent Case management tool (ACT). As indicated by the audit, open data does not provide personal information to Councillors and as such cannot fulfill the information sharing requirement that Councillors find useful. In addition, the Consent Report is also comprised of information gathered as part of the online service request process, which does not require staff resources.

Management agrees that improvements to the open data reports currently available online and through the Councillors' Portal would be beneficial to Councillors when looking at trends in call types and volumes both in their ward and across the city. ServiceOttawa will survey Councillors and provide results back to Council on the value of the continued use of the Councillor Consent Report in Q1 2016. ServiceOttawa will also review options for making 3-1-1 open data more user friendly to meet the needs of Councillors as part of the Open Data project by Q3 2016.

Audit Objective No. 2:

Assess the adequacy of the performance management system, including quality assurance.

Considerable effort goes into ensuring that the City maintains high customer service and client satisfaction, so it is important that it has insight into the quality of 3-1-1's telephone and email interactions. The Quality Assurance & Continuous Improvement branch, ServiceOttawa department, performs quality monitoring on an ongoing basis with approximately 3.3 FTEs (42% of QA total budget). Two of its quality assurance analysts serve 3-1-1. They review interactions and score agents based on a predetermined set of criteria.

Quality Assurance Analysts face recognized challenges, including consistency, proper calibration, subjectivity, and scoring. These have been identified by Quality Assurance & Continuous Improvement branch who uses team sessions to review these challenges and ensure that scoring among team members is uniform.

The branch also collects and reports on a post call satisfaction survey (the survey) offered through the IVR to random callers (one in two) at the completion of their interaction with the 3-1-1.

Both of these activities are considered best practices that help to ensure that the 3-1-1 service delivery meets residents/clients' expectations and that any challenges can be addressed in a timely fashion through operational changes, feedback, coaching, training, etc.

Since 2006, a Semi-Annual Performance Report (quarterly until the end of 2013) provides Council with results of various activities in terms of the City's performance information on core services provided to residents. Five measures in the Report relate to the Contact Centre: Contact Centre total calls answered; Percentage of calls answered within 120 seconds; Top 10 overall service requests; Web offload as proportion of total service requests (in that it delineates between service requests created via the web and those created through other channels such as phone and emails to the 3-1-1 Contact Centre); and ServiceOttawa top five service requests.

2.1 Overall, callers are satisfied with the 3-1-1 service. However, further analysis is required to identify periods when callers are less satisfied. As this information is currently not reported at ServiceOttawa's departmental Management Team meeting, these may not be apparent and focused remedial action to improve customer service and satisfaction may not be undertaken.

In 2014, 3-1-1 answered 499,618[6] calls. Half of these callers were selected by the IVR and offered the opportunity to complete a post call satisfaction survey. Of these, 4,316 surveys were completed representing 1.7% of those offered the opportunity.

The IVR survey is offered to callers while in the queue, prior to their interaction with an agent. The survey contains questions relating to overall quality of 3-1-1 service delivery; wait time; agent knowledge; courtesy of agent; understandability of agent; and whether the question was answered.

During 2014, callers were satisfied with 3-1-1 service (scoring 87%). However our analysis identified that callers reported being less satisfied with 3-1-1-service on Sundays and seven days a week between 1:00 and 5:00 a.m.

The overall results of the surveys are reported quarterly to the Office of Strategy Management meetings (ServiceOttawa departmental Management Team (DMT) members include the Director of ServiceOttawa, Manager Client Operations; Manager Quality Assurance & Continuous Improvement; Manager, Organizational Development; Manager Knowledge & Web Services; and, Manager, Service Transformation). ServiceOttawa Management indicated that the Office of Strategy Management report was developed to allow the DMT to work together to develop mitigation measures where results are not favourable and to facilitate DMT's evaluation and planning initiatives relating to departmental objectives.

Of the 4,316 individuals who completed the survey, 12% were very dissatisfied or dissatisfied with the overall quality of service, 12% were very dissatisfied or dissatisfied with the wait time to speak with the agent and 9% strongly disagreed or disagreed that their questions were answered.

Because aggregate results of the survey are reported to ServiceOttawa's departmental management team, specific periods when callers are less satisfied may not be apparent and more focused remedial action may not be undertaken.

Recommendation 2
That, in addition to reviewing the post call satisfaction surveys overall aggregate results, ServiceOttawa department analyze more meaningful data elements to identify periods were scores are significantly lower (e.g., weekend, overnight) and make operational changes to improve customer service and satisfaction.

Management Response

Management agrees with this recommendation.

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[6] Semi-Annual Performance Report covering Q4 2014 and Q1 2015.

According to the audit's findings, during 2014, callers were satisfied or very satisfied with 3-1-1 service (scoring 87%). Satisfaction scores are one of over 50 operational and strategic measures the management team looks at regularly to inform service decisions and service improvements.

ServiceOttawa will conduct a detailed analysis of post call satisfaction surveys for 2014 to determine if there are any periods where scores are significantly lower and operational improvements can generate measureable impacts on client satisfaction, by Q2 2016.

2.2   While the quality assurance process is adequate, opportunities exist to improve the call selection practices for quality assurance evaluation.

Two Quality Assurance Analysts complete the task of assessing call quality employing a predetermined evaluation form which highlights elements that the ServiceOttawa department identified as important to callers. This assessment aims to ensure that agents are compliant with City policies, procedures and quality elements (e.g., proper opening, soft skills, accuracy of information, security procedures, asking caller for authorization to share information, opening a service request as required, etc.).

In addition to selecting "listen-ins" of specific agents when issues are brought to the attention of QA&CI branch by one of the coordinators (infrequent occurrence), Quality Assurance Analysts select samples of listen-ins for evaluation randomly, without regard to the agents' prior performance, absenteeism, or performance indicators. Although all agents should be evaluated, considering other performance indicators may facilitate promptly identifying unsatisfactory performance and providing agents with additional coaching, training, etc.

Quality assurance evaluations are part of the coaching session discussions between a 3-1-1 coordinator and an agent. The 3-1-1 coordinator's goal is to conduct four formal coaching sessions per agent per year (one every 2-3 months) in addition to informal coaching activities to deal with issues that arise.

3-1-1 has two dedicated coordinator positions but documentation on coaching sessions could only be provided for the period of July to December 2014. Testing of five agents' coaching sessions identified that the coordinator did not meet the target of one coaching session per agent every 2-3 months.

The long-term absence of one of the 3-1-1 coordinators starting in November 2014 resulted in additional supervisory responsibility for the other 3-1-1 coordinator. Managing 39 agents as opposed to 18 affected the frequency of regular coaching sessions.

As the coordinator's role is primarily to manage 3-1-1, in addition to weekend on-call responsibility, we would have expected a long-term absence to be back-filled.

To evaluate the accuracy of information provided to callers against the knowledge base and the reasonableness of the listen-in scoring performed by the Quality Assurance analysts a judgemental sample of five evaluations were reviewed. Based on this review, QA&CI branch appropriately evaluated agents.

ServiceOttawa management indicated that there is no documentation of the number of times the quality assurance evaluations resulted in a coaching session between the 3-1-1 coordinator and an agent. Of the five evaluations reviewed, two had a score of zero due to failure to follow the security procedures (e.g., not confirming the caller's address). When an agent does not meet an auto-fail criterion, such as following the security procedures, the 3-1-1 coordinator is immediately informed so that s/he can address the non-performance. However, the failed score and importance of confirming a caller's address were not documented in either of the agent's coaching sessions.

With coaching sessions not occurring as frequently as planned, evaluations with low or zero scores may not be promptly discussed. This increases the probability of reoccurrence and a negative impact on customer service and satisfaction.

Recommendation 3
That ServiceOttawa department establish a process to select agents for quality assurance evaluations based on both past-performance and ensuring full coverage of agents.

Management Response
Management agrees with this recommendation.

The audit found that the quality assurance process is adequate and acknowledged that the team sessions used to ensure consistency, proper calibration, subjectivity, and scoring, as well as the post-call satisfaction surveys offered through the IVR is best practice.

Currently the selection of agents who are to be monitored is done randomly or is based on a request from a supervisor and is compared against a baseline quality score created at the onset of the quality program. The ServiceOttawa department will formally document the process to select agents for quality assurance based on past performance while ensuring full coverage of agents and the process for notifying Coordinators by Q1 2016.

2.3 **The 3-1-1 Contact Centre's service level target was not formally approved nor was support available for how it was selected. During the audit, ServiceOttawa Management indicated that the capability of costing various other service levels does not exist.**

The City of Ottawa upgraded its IVR on March 11, 2015. Unlike the previous IVR, the new system provides callers with the approximate wait times for service.

3-1-1's service level target is to answer 80% of the calls within 120 seconds. Ottawa's target is lower than other municipalities (e.g., Toronto - 80% of the calls in 75 seconds; Vancouver - 80% of the calls in 30 seconds, Calgary - 80% of the calls in 30 seconds, Edmonton - 80% of the calls in 25 seconds).

ServiceOttawa Management indicated that the current standard was not Council-approved. No documentation could be provided as to how it was selected, nor had its current and alternative phone service level standards been costed-out. ServiceOttawa Management, in an initial audit interview, indicated they could provide an estimated cost for other standard levels to the auditors. On November 27, 2014, the Director ServiceOttawa advised that they, *"don't currently have the capacity or tools to conduct this analysis with a degree of confidence and accuracy at this time. As part of the ServiceOttawa Program we are currently still implementing the workforce management tools to support the ability to conduct more detailed analysis. At this point in time the implementation is not yet complete."*

Because there is no "right" service level for 3-1-1, Management should define the service level based on clients needs, behavior and expectation, aligned with the business goals and objectives of the City. The service level is only one of the elements that contributes to caller satisfaction and a positive business outcome, though it has a direct impact on staffing. If calls are answered very quickly but cannot address the caller's issue, customer satisfaction is impacted. Conversely, if service levels are too strenuous, the City will incur additional staffing costs.

The City's commitment to service excellence prescribes that each interaction the City has with clients be a positive one. Establishing formal service level standards that are properly supported by analysis and approved by Council would help ensure that the quality of 3-1-1 service delivery to citizens, operational departments and elected officials, to provide timely information and delivery of services is achieved.

We would have expected the service level standards to be based on documented detailed analysis (including costs) and have been Council-approved, or at least presented to Council in an information report.

Recommendation 4

That ServiceOttawa department conduct a detailed financial analysis of service level standard scenarios for calls and for emails and seek formal approval from Senior Management and Council.

Management Response

Management agrees with this recommendation.

Service levels are established considering client satisfaction balanced with the financial resources available within the municipality. These service standards are targets set by the municipalities based on their resourcing, call volumes and offered services to achieve a desired satisfaction threshold.

The 3-1-1 service was established in 2005. Performance against 3-1-1's service standard has been reported to Council through the budget process and the Semi-Annual Performance Report to Council since 2006.

Being mindful of 2016 budget directions approved by Council on October 14, 2015, management will conduct a detailed financial analysis of various service level standards for calls and emails and will seek formal approval of the service level and associated budget from Senior Management and Council prior to budget in Q3 2017.

2.4 The Semi-Annual Performance Report to Council does not provide important customer satisfaction metrics including: disclosure that calls abandoned within 120 seconds are considered answered; the average wait time of calls answered after 120 seconds; or how many calls are abandoned.

For Q4 2014, as reported in the Semi-Annual Performance Report presented to Council in June 2015, 3-1-1 exceeded their target service level of 80% in 120 seconds. This metric included all calls abandoned within 120 seconds which were considered as having been answered. We independently recalculated the service level based on call-by-call data and found that the service level of 81% as reported in the Semi-Annual Performance Report to Council was accurate.

There are different ways of calculating the service level (e.g., including and excluding abandoned calls). We reviewed the practices used by four other Canadian municipalities and noted that the methodology used by Quality Assurance and Continuous Improvement branch, to calculate the service level is comparable. Service level (% of calls answered within the threshold time) is calculated in one of two ways:

- Abandoned calls within the service level threshold are considered answered; or,

- Abandoned calls within the service level threshold are excluded.

On average, during January to July 2014, 17% of all calls were abandoned. *"A call is considered abandoned if the caller hangs up before connecting to an agent".* However, calls may be abandoned because the caller has obtained the information they required through the IVR. According to an industry source, a high number of abandoned calls might also be an indication that callers are waiting in the queue for too long. There are different types of abandoned calls:

- **Abandoned with agent** indicates the call was dropped while being held at an agent device. For example, the caller is connected to an agent; the agent puts the caller on hold; and the caller hangs up before the agent returns;

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- **Abandoned Ring** indicates the call was abandoned while ringing at a device. For example, the caller did not wait for the call to be answered but hung up while the call was ringing; and,

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- **Abandoned** indicating that the caller hung up during the initial waiting period, while in the queue.

3-1-1 assumes that abandoned calls are unavoidable and are due to callers obtaining the information from the interactive voice response (IVR); being unwilling to wait; having misdialed; or pushing the wrong option on the IVR. The IVR provides callers with a simplified menu of service options, and some limited information. Despite this IVR feature, it is reasonable to conclude that it is unlikely that all abandoned calls result from callers having obtained the information they seek.

Clearly, the current method of calculating the percentage of calls answered within 120 seconds (Measure 17), which includes calls abandoned within this threshold as "calls answered", positively influences the service level calculation. Testing of the IVR during a Monday peak call volume period confirmed that the estimated wait time is only provided to callers after the120 second threshold, suggesting that callers are not abandoning calls because they are expecting lengthy wait times.

The Semi-Annual Performance Report to Council would be more transparent if it disclosed that calls abandoned within the 120 seconds are considered answered in the calculation of "*Measure 17 – Percentage of calls answered within 120 seconds*". Council and interested parties reading the report are not apprised of this.

"*Measure 16 – Contact Centre total calls answered*" of this Report provides total calls answered but does not report on how many calls were abandoned over the period. Reporting on the level of both calls answered and abandoned (call offered) may be a more representative measure to inform Senior Management and Councillors for decision-making and to improve customer service and satisfaction.

The websites of four municipalities with 3-1-1 call centres were reviewed. Three of these provided information on total calls offered (i.e., answered and abandoned).

Another potentially informative performance indicator is the average wait time of calls that are not answered within the 120-second service level. For Q4 2014, the average wait time for such calls was 8:03 minutes (ranging from 2:01 minutes to 59:35 minutes) and the average total call time (wait time plus talk time) was 11:19 minutes (ranging from 2:11 minutes to 1:36:35 hour).

Table 1 Number of Calls by Time of Day and Minutes to Answer or Abandon - Q4 2014

Time of Calls	00:00 to 02:00	02:01 to 05:00	05:01 to 15:00	15:01 to 30:00	30:01 to 45:00	45:01 to 59:00	Total Calls Offered
00:00 to 00:59	798	79	32	0	0	0	909
01:00 to 01:59	586	56	20	1	0	0	663
02:00 to 02:59	345	42	21	0	0	0	408
03:00 to 03:59	297	25	6	0	0	0	328
04:00 to 04:59	207	16	7	3	0	0	233
05:00 to 05:59	231	26	6	0	0	0	263
06:00 to 06:59	554	78	41	5	2	0	680
07:00 to 07:59	2,125	348	226	39	2	0	2,740
08:00 to 08:59	6,268	1,173	1,074	173	5	0	8,693
09:00 to 09:59	10,362	1,548	1,543	132	18	4	13,607
10:00 to 10:59	10,345	1,899	1,664	155	3	1	14,067
11:00 to 11:59	11,514	983	870	80	0	0	13,447
12:00 to 12:59	9,659	1,262	875	120	3	0	11,919
13:00 to 13:59	10,284	1,488	998	131	7	2	12,910
14:00 to 14:59	9,822	1,531	1,173	118	2	0	12,646
15:00 to 15:59	10,224	1,344	737	114	1	0	12,420
16:00 to 16:59	8,145	703	369	24	0	0	9,241
17:00 to 17:59	4,376	527	347	30	0	0	5,280
18:00 to 18:59	3,206	314	172	27	1	0	3,720
19:00 to 19:59	1,570	172	99	5	1	0	1,847
20:00 to 20:59	1,363	227	146	33	9	3	1,781
21:00 to 21:59	1,062	148	109	19	10	5	1,353
22:00 to 22:59	960	130	54	12	0	0	1,156
23:00 to 23:59	1,135	121	31	0	0	0	1,287
Total Calls Per Wait Time	105,438	14,240	10,620	1,221	64	15	131,598
% of Calls Per Wait Time	80%	11%	8%	1%	0%	0%	100%

The Semi-Annual Performance Report provides measures without fully explaining how the service level is calculated, and does not report on key customer service metrics such as wait times and call abandonment. The current report does not provide adequate customer service metrics to inform senior managers and Council for decision-making.

Recommendation 5

That ServiceOttawa department report to Council and Senior Management on all wait times and abandoned calls and disclose how service levels are calculated in

the Semi-Annual Report to Council. In addition consult with Corporate Programs and Business Services department on what other measures would be useful to stakeholders.

Management Response

Management agrees with this recommendation.

Reporting on 3-1-1 measures was established in 2006 based on available data and Council needs at that time. Management included how service levels are calculated in the Q2/Q3 2015 Semi-Annual Report to Council and will report wait times and abandoned calls in the Semi-annual Report beginning in Q1 2017. Management will also consult with the Corporate Programs and Business Services department as to what other 3-1-1 related measures would be useful to stakeholders.

Recommendation 6

That ServiceOttawa department conduct a full analysis of abandoned calls, within and beyond the service level threshold, to support strong decision-making around resourcing and service level standards critical to the Contact Centre.

Management Response

Management agrees with this recommendation.

ServiceOttawa will conduct an analysis of abandoned calls within and beyond the service level threshold using available data by Q1 2016.

2.5 Seven percent (8,000 calls) of all calls answered during Q4 2014 were to the Emergency Line. Because 3-1-1 does not have the capability of obtaining the call-by-call details for half of these, their related service level and lengths of calls cannot be assessed.

The City of Ottawa has an Emergency Line, which is also referred to as the Internal Priority Response Line. A knowledge base article relating to 3-1-1 Dispatch Duties states that, *"Calls from the Emergency Line (xxx-xxxx): Confidential number used by Emergency Services (Police, Fire, etc) and other City departments, to reach Contact Centre quickly without having to wait in a queue. NOTE: This number has been given to City employees needing EAP (Employee Assistance Program) after hours."* The line is used by Councillors, Ottawa Police Service, Ministry of Transportation, National Capital Commission, Dispatch, Roads, etc., in order to by-pass the 3-1-1 queue and have priority.

In Q4 2014, the emergency line received 8,000 calls. This accounts for 7% of all calls answered during this period. Calls to the emergency line received during regular

business hours are sent to the internal queue, but have priority, and are included in the call-by-call report. These can be identified by the phone number.

During Q4 2014, there were 3,919 Emergency Line calls included in the call-by-call report out of 8,000. Calls that ring on all phones after regular business hours (4,081 calls), are not sent to the internal queue; therefore, they do not appear on the call-by-call report, or any other data mining report.

Quality Assurance & Continuous Improvement branch, which prepares the statistics reported in the Semi-Annual Performance Report to Council, advised that there is no report available which would provide the detail call-by-call data that accounts for 4,081 additional Emergency Line calls. The branch also assumes that all calls to the Emergency Line are answered within 120 seconds. Not having the capability of obtaining the Emergency Line's call-by-call details results in the City not being able to assess the service level and call lengths of over 4,000 calls.

The validity of the assumption that Emergency Line calls are responded to within the threshold was verified on the 3,919 call-by-call data. As only 12 of these calls were not responded to within 120 seconds, it is reasonable for the branch to assume that the vast majority of calls to the Emergency Line are responded to within the threshold.

2.6   The number of Service Requests reported in the Semi-Annual Performance Report to Council contained a number of small errors.

As previously noted, the Semi-Annual Performance Report provides Council with results of five measures related to the Contact Centre, three of which relate to service requests. Namely, "Top 10 overall service requests"; "Web offload as proportion of total service requests" (in that it delineates between service requests created via the web and those created through other channels such as phone and emails to the 3-1-1 Contact Centre); and "ServiceOttawa top five service requests".

3-1-1 agents respond to requests received via phone and e-mail. When the request is for information they generate an Information Request (IR) in the CSM system. When the request requires some sort of action from the City, they generate a Service Request (SR).

The validity, accuracy and completeness of the SR information presented to Council in Q2 and Q3 2014 was verified. We identified differences between the support provided by Quality Assurance and Continuous Improvement branch and the data obtained from Information Technology Services (ITS) department. Subsequent to our review, the branch restated the number of SR's for Q2 from 87,531 to 87,058 (downward revision of 473) and for Q3 from 79,060 to 76,751 (downward revision of 2,309).

For Q3 there were also 1,575 service requests relating to Fleet, Traffic Management and Lansdowne Park & Stadium which were not included in the Semi-Annual Performance Report. Quality Assurance and Continuous Improvement branch indicated this was an oversight and that the next report would restate the quarter's results. In addition, there remains a small un-reconciled difference that Management cannot explain for Q2 (86,789 recalculated versus 87,058 reported: 269 difference).

See section 2.7 below for the process used to prepare these figures.

2.7 The process for compiling service request information that is part of the Semi-Annual Performance Report to Council is time-consuming and prone to human error.

Quality Assurance and Continuous Improvement branch have created a procedure[7] detailing the steps required to compile service request data for the Semi-Annual Performance Report. The process document is changing continuously as new types of service requests are recorded in one system and are no longer recorded in the other.

Compiling service request information for the Report is time consuming for staff as the information is extracted from two systems and only service requests created by City staff are included. Detailed calculations are made to support a summary sheet which is submitted to ServiceOttawa Management and reviewed. These summary sheets are then used as the source for the figures in the Semi-Annual Performance Report. Because the compilation is complex and manual, it is prone to human error and restatements have been required when errors were discovered.

The original source data for the Report remains available in various systems and as such the data extracts are not retained. The detailed calculations which support the figures on the summary sheet are also not retained. These summary calculations are reviewed by ServiceOttawa Management although they do not receive or review either the raw data or detailed calculations. Given the complexity of the compilation, only larger errors would be readily recognizable by management.

As such, as evidenced by the discrepancies described above in Section 2.6, there is an opportunity to improve the processes used to compile and review the service request information reported in the Semi-Annual Performance Report to Council to ensure its accuracy.

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[7] Currently under review - covers steps for Measures 16 to 22

Recommendation 7

That ServiceOttawa department verify the accuracy of information provided to Council and that documentation of management's review and approval be retained.

Management Response

Management agrees with this recommendation.

The Semi-Annual Report to Council was developed in 2006 using multiple systems and manual processes. With the reduced use of legacy systems, ServiceOttawa will now report data from an identified single database source which will be provided to Council in future reports. Furthermore, as of Q3 2015, the source data, and management review and approval are being retained. Management considers this recommendation complete.

Audit Objective No. 3:

Assess the adequacy of the management of wait times; and, timeliness of email responses.

While wait time information is visually available to agents and management through one of four "wallboards" as well as on their desktops; agents have very little control over service level when the agent to volume ratio is high.

Using the Unified Contact Centre Enterprise (UCCE)[8] data, the wallboards display real time information on agents, calling stats and service level goals against actual (i.e., wait times; current service level for the entire day; number of callers in queue; number of agents available and talking; and, number of calls offered and abandoned). It is used as a tool to communicate and manage the service level.

3.1   The two service level standards for 3-1-1 to respond to emails are not formally approved and 3-1-1 was not consistently meeting either of these service standards.

Members of the public can email the City of Ottawa at 3-1-1@ottawa.ca. In 2014, 3-1-1 received 5,872 emails from the public[9]. While there is a separate email address for Councillors' queries to 3-1-1, many elected officials use the 3-1-1@ottawa.ca mailbox.

The Ottawa.ca website informs readers that: "Email replies can take up to five business days and only requests for City of Ottawa services will receive a reply. If you have an

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[8] Call handling system
[9] Public emails for the period January 1 to December 31, 2014 (excluding, duplicates, out of office/read receipts, response not required, undeliverable, etc.)

urgent matter, please call 3-1-1 or (613) 580-2400." In addition, if (1) the email is sent from an external email address (no Ottawa.ca accounts); and (2) the email is sent to 3-1-1@ottawa.ca, the system sends an automatic email acknowledgment, which specifies a five business days or longer response time.

In 2014, 3-1-1 was not meeting either service level standard. 3-1-1 met the five business-day public service level standard 62% of the time. In total, 3,633 emails were responded within five business days; 1,841 within two weeks; and, 398 in more than two weeks. Similarly, the two business-hour Councillor service level standard was met 23% of the time (4,489 emails[10]) and 51% were responded within 8 hours (both business hours and actual hours).

Responding to public and Councillors' emails represents an important task for 3-1-1. 3-1-1's service level standard is to respond to an email from Councillors within two hours during regular business hours (Monday to Friday, 08:00 to 17:30); and from a member of the public in five business days. However, neither standard is based on documented detailed analysis (including costs), nor have they been Council-approved or presented to Council in an information report. Having Council approve the service level standards would confirm that these are the level of service they expect 3-1-1 to provide. The 2011-2014[11] Term of Council Priorities, adopted in July 2011, included Council's vision for the City of Ottawa to increase the public's confidence in City government and improve resident, enterprise, and visitor satisfaction with City services. Two objectives under the Service Excellence priority; ensuring a positive experience for every client interaction; and, improving operational performance, were adopted.

The Semi-Annual Performance Report to Council does not currently report on 3-1-1's email handling performance against either standard. Based on interviews conducted, Councillors' Offices were not aware of 3-1-1's email service level standard for Councillors or the service level standard for the public. The Institute for Citizen-Centred Services[12] notes that, *citizens generally want prompt turnaround from governments, and that citizen's expectations for same day service are noticeably higher if the interaction is being undertaken by email or by telephone*.

During the course of the audit, 3-1-1 created a guideline document dated April 2015, which was revised in May 2015, for responding to 3-1-1 emails. While the knowledge required to respond to an email query is no different than for a phone query; managing

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[10] Councillors' emails for the period July 1, 2013 to June 30, 2014

[11] At the time of this report the 2015-2019 Term of Council had not been adopted.

[12] The Institute for Citizen-Centred Services is a Canadian non-profit organization that conducts research in their mission to promote high levels of citizen satisfaction with public sector service delivery.

and responding to emails is time consuming for 3-1-1. Management also indicated that responding to email requires writing skills.

ServiceOttawa Management informed us that responding to emails was more time consuming and therefore costly for 3-1-1. However, the only cost analysis provided for Client Operations branch was for Q1 2014 (Draft Financial costing for Client Services) and did not report on email and phone transactions costs separately. Costs per transaction were calculated for 3-1-1; Client Service Centres; and, Web. The cost per transaction for 3-1-1 and email was estimated to be $7.13. This draft analysis was completed by Finance but has not been approved hence the cost per transactions have never been reported.

As further discussed in section 6.1, emails continue to be managed through MAP. Although the City purchased the CSM system email functionalities, MAP is still used. 3-1-1 Management informed us that there are three specific functionalities in MAP that do not exist in the CSM system. Namely, MAP enables a user to open the email on a separate screen, so that the details are visible while the agent uses the script flow or the knowledge base to respond to it; agents can also create an information request and append all related emails to the same request (emails are linked together via subject rather than sender); and, agents can review and dispose of multiple junk mail messages at the same time, whereas in the CSM system each email must be opened and reviewed individually. Notwithstanding these features, the current process for processing emails involves many steps (copying and pasting to and from MAP, CSM system and Outlook). We were informed that MAP is at end of life, however, at this time, there is no set timeline for the "MAP Replacement Project".

When 3-1-1 does not meet its email service level standards, customer service and satisfaction are impacted. It can also result in residents emailing 3-1-1@ottawa.ca numerous times, or possibly calling, concerning the same issue – both increasing dissatisfaction with 3-1-1 and unnecessarily increasing 3-1-1's workload (e.g., managing emails). When residents do not obtain a timely email response, they may also email their Councillors, which often results in even more emails on the same subject.

Recommendation 8
That ServiceOttawa department in collaboration with Information Technology Services investigate improvement to systems and processes used for handling 3-1-1 emails.

Management Response
Management agrees with this recommendation.

Service requests received via email are now being processed in the Citizen Services Management (CSM) system. While 3-1-1 emails continue to be used by a very small segment of users, ServiceOttawa will forward the improvements related to email handling as user requirements to Information Technology Services (ITS), to investigate further email improvements that can be achieved through an upgrade of the current CSM system. These user requirements will be submitted to ITS by Q1 2016.

Recommendation 9

That ServiceOttawa department report on email service levels as part of the Semi-Annual Performance Report to Council.

Management Response

Management agrees with this recommendation.

Management recognizes that email service level is an important measure of client experience and as such, management agrees that email service level should be set and reported as part of the Semi-Annual Report to Council. Management will report the service level of 311@ottawa.ca in the Semi-Annual Report beginning in Q1 2017.

ServiceOttawa has established a specific internal operating method to support Councillor constituent work via an email channel separate from 311@ottawa.ca. As this method is an internal organizational process it will not be reported in the public Semi-Annual Report to Council.

Recommendation 10

That ServiceOttawa department conduct benchmarking with comparable Canadian municipalities in order to compare cost per call, cost per email, and other relevant measures to gain an independent perspective on performance and identify specific areas for improvement.

Management Response

Management agrees with this recommendation.

The current process to compare metrics across municipalities is done through the Ontario Municipal Benchmarking Initiative (OMBI). At present, 3-1-1 services are not part of the reporting through OMBI. By Q1 2016, management will recommend to the Corporate Programs and Business Services department that 3-1-1 performance metrics be considered as part of the OMBI program.

3.2 The Contact Centre is not using the capacity of low call volume periods or Client Service Centre Representatives, as efficiently as possible to respond to email inquiries.

During audit planning, ServiceOttawa Management indicated that, in addition to agents, Client Service Representatives (CSRs) also responded to emails. Data provided indicated that 626 of 5,030[13] (12%) emails from the public and 1 of 4,489 (0%) emails from Councillors were handled by CSRs. During the fieldwork phase, the 3-1-1 coordinator indicated that this practice is no longer used due to the resource requirement to train and maintain email skills in the CSR agents.

In addition, email response duties do not seem to have been assigned to evening and overnight shifts, periods when call volumes are substantially lower. The vast majority of emails are received and responded to during weekdays, between 8:00 and 16:00. A total of 37 Councillors' emails[14] were responded to between 23:00 and 5:59, with only 6 of these handled between midnight and 5:59 when call volume is at its lowest.

Similarly, in Q4 2014, of the 2,256 emails received from the public 186 (8%) were responded to between 16:00 and midnight, and only 11 emails (0.49%) between midnight and 5:59.

The overnight shift and Client Service Centres with low traffic volumes are not responding to emails. Management indicated that CSRs no longer respond to emails due to a lack of training; however specific CSRs can be added to the phone queue to answer specific call types. Therefore the added task of responding to emails primarily falls to agents working during higher call volume periods.

Recommendation 11
That ServiceOttawa department determine the most cost efficient way to meet its email performance standards. Consider utilizing agents working periods with lower call volumes and training staff where required.

Management Response
Management agrees with this recommendation.

ServiceOttawa recognizes that the email channel continues to be a service channel for a very small portion of 3-1-1 service users. With the implementation of the Workforce Management tool in the spring of 2015, management has the ability to definitively identify times of day and days in a week that can accommodate email processing.

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[13] For the period July 1, 2013 to June 30, 2014
[14] Councillors' emails for the period July 1, 2013 to June 30, 2014

ServiceOttawa will develop a procedure that will direct emails to be processed during periods of lower call volumes by Q3 2016.

3.3   No written procedures exist to manage the 3-1-1 call wait times on a continuous basis.

The wallboard[15] statistics were noted by the auditors 24 times (beginning and end of 12 sit-ins[16] with agents). While agents were aware of the point-in-time service level for that day, the 80% standard was only met on four occasions (17%); and in 13 occasions (54%) it was below 70%.

The wallboard identified the longest wait time on Monday morning (16 minutes) which correlated with the highest abandonment rate (44%) and no wait time on Sunday Morning which correlated with the lowest abandonment rate (3%).

As previously noted, 3-1-1 is open 6 days a week for all types of inquiries and services (by telephone and by e-mail), and 24/7 (e.g., Sunday) for urgent requests (e.g., traffic lights not functioning, broken water mains and By-law complaints).

3-1-1's practice to decrease wait times and improve the service level is to change the IVR to provide additional information to residents, such as a flood in a specific area, and to add CSRs to the phone. This is done by the 3-1-1 coordinator communicating with her CSC counterpart and asking if cross-trained agents could take calls. However, Management indicated that there is no specific threshold/wait time that would cause the 3-1-1 coordinator or manager, Client Operations to take action. This is done based on the use of judgement (based on a variety of factors at both 3-1-1 and the Client Service Centres). Management indicated they manage wait times using the wallboard.

The names of CSRs added to the phones and the number of calls they take are recorded in the UCCE and reported in the daily dashboard. During Q4 2014, 4% of calls (5,052 phone calls) were handled by CSRs.

Without a formal written procedure and defined threshold, it is not possible to ensure consistency of action for decreasing wait times and improving service level. Formal procedures would ensure that service is provided in a consistent manner and inform employees (3-1-1 coordinators, agents and CSRs) of performance expectations.

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[15] 3-1-1 has four wallboards – one on each wall
[16] April 13-19 and April 26, 2015

Recommendation 12

That ServiceOttawa department establish a procedure for decreasing the wait times and assigning available Client Service Representatives to the phone during periods of high call volume.

Management Response
Management agrees with this recommendation.

Call volumes at the 3-1-1 Call Centre are impacted by weather events such as snowfall and wind, seasonal trends such as spring thaws and program registration processes, and service delivery changes. Wait times on the phone are managed through the creation of a work schedule that considers daily and seasonal trends year-over-year and the financial envelope provided for the Client Operations Branch. The schedule is created using the new Workforce Management tool that was implemented in March 2015 based on historical and seasonal call trends. Decisions on managing daily wait times are made in real time based on the experience and judgement of the Senior Agents, Coordinators and the Branch Manager.

Management will establish a procedure that includes a set of criteria to guide the judgement of 3-1-1 management in managing wait times and assigning Client Service Representatives during periods of unanticipated high call volume by Q2 2016.

Audit Objective No. 4:

Assess the accuracy of information provided by the 3-1-1 Contact Centre.

Information is at the core of 3-1-1's activities. One of the most important factors for customer satisfaction is for 3-1-1 to ensure that callers are provided with accurate information in a timely fashion.

3-1-1's IVR routes each call, based on selections made by the caller, to one of 12 specific queues (e.g., primary, student queue, French, other language, escalation, etc.) that allows agents with the required knowledge to handle these queries efficiently. Summer students, new hires and cross-functional agents (e.g., from CSCs) are first assigned to a student queue until they gain enough knowledge, experience and undertake more advanced training to be able to deal with more calls.

The CSM system's knowledge base and Ottawa.ca is the City's centralized repository and primary source of information available to 3-1-1 agents (as well as non-3-1-1 counter staff) to respond to queries. The knowledge base serves as the collection point for all City internal and public information. The knowledge base is a library for 3-1-1 agents to research and provide information to residents/clients through telephone or email. Knowledge Base Articles (KBAs) have been created by Subject Matter Experts

(SME) on specific subjects, events, by-laws, policies, procedures, etc. to allow 3-1-1 and counter agents to handle a wide range of queries. Calls requiring additional expertise not available within the knowledge base are transferred to the appropriate City resources/department/branch, usually as set out in a KBA.

Management believes that as 3-1-1 agents' expertise and KBAs available to them has expanded, they handle more of the calls without resorting to transfers (unless directed by the KBA) and infrequently to call backs. In instances where a call needs to be transferred to another City employee, KBAs provide agents with the appropriate extension or cellular phone number and states when these numbers are confidential and should not be shared with the caller. Observations of agents taking calls during the audit support that these practices are followed.

Overall, 3-1-1 agents observed were professional, customer oriented and tried to respond quickly to callers' service and information requests. Agents took the time required to appropriately address each caller's request even while service levels were below the standard.

It was also observed that agents remained calm and professional while handling calls with callers who were very upset.

3-1-1 agents possess an impressive amount of knowledge about the City and effectively multitasked (e.g., researched the web, knowledge base, City systems, inputted data in the CSM system) while speaking with callers.

4.1 Single Points of Contact were given the responsibility for KBAs without being informed of the specific articles they were responsible for. Not all SPOCs were provided with access to the knowledge base.

City department's each have a Single Point of Contact (SPOC) that manages and approves KBAs on behalf of that department for submission to ServiceOttawa. Staff liaise with their SPOC to request information on any existing KBAs and to get any new or updated KBAs published.

SPOCs email any new or updated KBAs to the Knowledge & Web Services branch. The process was tested by reviewing a sample of 10 authorization emails[17] from SPOCs for the creation or update of KBAs. The 10 emails covered 12 articles. The review was conducted six months after the articles had been provided to Knowledge & Web Services branch. It identified that:

- All new and updated articles had been uploaded to the knowledge base;

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[17] All were from December 2014

- In 4 of the 12 articles, the French KBAs did not match the corresponding English KBAs. Specifically, one did not have a matching French article; two did not have the updated French article and one had a French solution that mostly matched;

- Two had blanks for date created;

- Two had the last date reviewed earlier than the date created (this is due to "Last Reviewed" date being a manually entered field); and,

- One English article linked to an outdated 2014 French article whose link went to the 2015 English FAQ, which was not translated.

Guidelines, procedures, forms, etc., to support SPOCs and subject matter experts (SMEs) have been created and are readily available on the City's Intranet. Specifically: KBA in 5 easy steps (Writing & Updating KBA); Writing Guidelines; KBA Resources; KBA – Process Flow; KBA Form – General Info; and, KBA Form – How To.

The process to create and update a KBA is well documented, clearly identifies all stakeholders' responsibilities and appears reasonable. SPOCs interviewed understood the process well and ensured that their SMEs used the appropriate template to create an article.

SPOCs often act more as a coordinating resource. They receive the request from Knowledge & Web Services branch to update an existing article or to create a new one and assign it to the applicable SME for their action. While SPOCs are asked to authorize articles for upload to the knowledge base, most often their approval indicates that the appropriate SME has reviewed/authored the article. Starting in 2015, the Knowledge Base coordinator manually enters the name of the SME who actually reviewed the article.

SPOCs are not always aware of all of the KBAs that they are responsible for. This contributes to articles not being reviewed on a regular basis. In addition, English articles are often submitted by SPOCs without a corresponding French article. This would likely cause discrepancies between corresponding articles. In April 2015, the City's knowledge base contained 3,423 open articles, of which only 1,555 were French. Duplication of open KBAs was also reviewed and found to be minimal. Management indicated that during the conversion to the new knowledge base, the City made the decision to only translate external facing articles. However, any KBA created or updated subsequent to the 2011 conversion should have both French and English versions according to the Bilingualism Policy.

The CSM solution that the City has purchased does not provide functionality that supports sending notifications automatically to SPOCs based on the "review by" date.

This version also does not offer this functionality for purchase. Currently, the City does not have any plans to automate more of the management of knowledge base in the CSM system.

In 2011, to populate the CSM system's repository for the first time, IBM was used to create a series of KBAs from information contained in the former system. The intent was that these would be sent to departments for validation. However, due to tight timelines this was not done and SPOCs were made responsible for articles without being provided the complete list.

In April 2015, only 6 of the 22 current SPOCs had access to the knowledge base. Two had requested it, as they initiated a project to determine which articles for their department were their responsibility. The four other SPOCs have rarely or never used it. Section 4.2, below, discusses knowledge base access.

Of the four organizational units without a formal SPOC (see section 4.3 below), only one, ServiceOttawa department, has access to the knowledge base. The other three areas fall outside operational areas.

Recommendation 13

That ServiceOttawa department provide each SPOC with access to the knowledge base and advise them of every KBA related to the department for which they have responsibility.

Management Response

Management agrees with this recommendation.

The knowledge base was part of the CSM development and implementation in 2011/2012 through the ServiceOttawa Program. Given the extensive scope of the activities required to create an enterprise knowledge base, the initial development consisted of converting existing sources of information directly into the knowledge base. The departmental responsibility for ensuring that articles are accurate and up to date rests with the department's identified point of contact (SPOC). Each SPOC will be provided a list of articles for which they are responsible and access to the knowledge base by Q4 2015

Recommendation 14

That ServiceOttawa department ensure that departments provide KWS with English and French versions of each KBA so they can be uploaded simultaneously or within a very brief timeframe.

Management Response

Management agrees with this recommendation.

Primary responsibility for ensuring that articles are accurate and up-to-date rests with the department's identified point of contact (SPOC). ServiceOttawa will send a formal reminder to all SPOCs and department heads to ensure that they post articles in both official languages. ServiceOttawa will request that department heads confirm in writing that all knowledge articles are posted in French and English and are checked as part of their annual review process. This work will be completed by Q4 2015.

4.2 Only 288 of the 457 employees (63%) with access to the knowledge base had ever used it as at April 2015.

Access to the knowledge base defines the level of information that a user can view. Each KBA has two sections; internal and external. Internal access enables a user to see both internal and external content; whereas external access provides the user access to external content only. The difference is that internal content provides information which should not be disclosed to non-internal employees e.g., on-call cell phone numbers. Internal content is restricted to employees that require the information, e.g., 3-1-1 Contact Centre, ITS, ServiceOttawa employees, etc.

In April 2015, 457 employees, elected officials and their office personnel had internal (241) or external (216) content access to the knowledge base. 3-1-1 agents and specific employees (e.g., ITS and ServiceOttawa employees) have internal access. Of the 457 individuals with access, only 288 had ever used the knowledge base (63%).

- 65 have used it 10 times or less;
- 28 between 11-25 times;
- 53 between 26-100 times;
- 70 between 101-999 times; and,
- 72 greater than 1,000 times.

While external access to the knowledge base has been provided to senior managers, elected officials and their office personnel, it is either not being used or is seldom used. Councillors' Offices indicated they were unaware they had access to the knowledge base. This was brought to ServiceOttawa's attention during the audit and they agreed to follow-up with these Councillors' Offices.

Of the 23 senior managers with access to the knowledge base, none have ever used it, indicating that perhaps the access may have better been provided to their assistants or office staff. Better awareness of the knowledge base and how to obtain information from it could increase its usage and reduce emails/calls to 3-1-1. 3-1-1 received

approximately 4,500[18] emails from elected officials and their office staff. Providing them with the capability of conducting some or all of their own research would likely reduce the number of queries to 3-1-1 (via email and phone), freeing up agents' time and enabling Councillors' Offices to obtain the required information quicker.

Recommendation 15

That ServiceOttawa provide ongoing regular information sessions or other effective methods to increase awareness of the knowledge base and any other access available to Councillors' Offices and/or City employees so they can obtain information directly.

Management Response

Management agrees with this recommendation.

ServiceOttawa will develop a knowledge base e-learning module that will be posted on Ozone and the Councillors' Portal. In addition, a briefing note will be added to the orientation materials for use when training new staff in Councillors' offices by Q3 2016.

Recommendation 16

That ServiceOttawa review current access and usage of the knowledge base and reassign access where appropriate.

Management Response

Management agrees with this recommendation.

ServiceOttawa is working with Information Technology Services to investigate improvements through the CSM upgrade project, which will implement a new knowledge base tool. Roles, responsibilities and access will be reviewed with each operating department by Q4 2016.

4.3 Not all KBAs were up-to-date, accurate, needed and in all the languages needed to serve residents/callers.

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[18] July 1, 2013 to June 30, 2014

Each department/branch should have a Single Point of Contact (SPOC) to manage and approve KBAs for submission to the Knowledge & Web Services branch, ServiceOttawa department. As at April 2015, there were 22 SPOCs (one department had two). We identified that four organizational units; ServiceOttawa[19], Crime Prevention, Office of the Auditor General, and, Committee of Adjustment did not have a SPOC.

Testing of a statistically valid sample of 50 KBAs was conducted. Within this sample, six articles had to be reassigned as the SPOC could not be identified. Beginning in September 2014, when the current Knowledge Base coordinator, Knowledge & Web Services branch, filled the position, the name of the department and branch responsible for the accuracy of the article were added in the metadata[20] of the KBA. However, many articles still currently lack this information.

For the 50 articles reviewed, SPOCs were asked to confirm if the article was still needed; if the information was up-to-date and accurate, and, if they had authorized the article on the last approval date as provided in the article's metadata. They confirmed that:

- 10% were no longer needed;
- 60% were not accurate or up-to-date (includes articles no longer required); and,
- the last approval date was correct for 32%[21] of articles.

For the same sample of 50, we examined the Last Review Date for the corresponding French and English version of the articles. In 8 cases the French and English versions were last reviewed on the same date, in 2 cases there was a difference of 5 days and in 10 cases the difference was less than one month (total: 40% with review dates within one month). However, 4 articles only existed in one language, 8 articles were missing a either the French or English Last Review Date; and, for the remaining 18 articles the difference ranged from 45 to 833 days.

A Writing Guideline for KBAs is available on the City's Intranet. It states that the "revision period to help ensure articles are always up-to-date should be indicated" and that "all articles should be reviewed at least once annually".

Customer service is negatively impacted when KBAs are not current or a specific article is not available. 3-1-1 has a clear Escalation Process for agents to flag any KBA they feel is not complete or accurate. If the article is not found or if the agent questions its

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[19] On August 25, 2015 the Ozone listing of SPOCs was updated and that listing identified a SPOC for ServiceOttawa department.

[20] Data about data - Metadata (metacontent) is defined as the data providing information about one or more aspects of the data, such as: Means of creation of the data; purpose of the data; time and date of creation; creator or author of the data, etc.

[21] The last approval date was incorrect in 8% of cases; no longer applicable in 2% and unknown in 58%

validity, they first consult with a senior agent – effectively doubling the resources required for the call. Additional resources are also required if an article is not available and the call needs to be transferred to an operational employee.

A review of all KBAs should be done regularly, per the Writing Guideline for KBAs, at least once yearly, to ensure information is up-to-date, accurate, and useful to agents. Keeping content accurate and ensuring that all required KBAs are available improves agent productivity while providing correct and up-to-date information to callers.

Knowledge & Web Services branch has not yet followed-up with the various departments to validate KBAs. Since the implementation of the knowledge base in 2011, most articles are reviewed as a result of agents questioning their validity through the Escalation Process. The branch indicated that the new KBAs review process would be built into their 2015 work plan (not audited).

There is currently no "exception report" or other mechanism in the system to advise the Knowledge Base coordinator, and related SPOC of when an article is due for review. Also, Knowledge & Web Services branch does not have a mechanism to search through the knowledge base and identify which articles need updating.

Although the KBA metadata includes a last modified date, Knowledge & Web Services branch indicated that this is not actually the last date the article was reviewed by a SPOC but rather the last time an article was opened. Although the Knowledge Base coordinator did work with GIS to add an additional field "Last reviewed by", the field is a free text field and not a date field which requires manual entry. There are no existing reports (ad hoc or regularly scheduled) based on the date field.

Recommendation 17
That ServiceOttawa department implement a formal process to review each KBA at least annually, as per the Writing Guideline for KBAs.

Management Response
Management agrees with this recommendation.

Each SPOC will be provided a list of articles they are responsible for so that they can review and revise as required. ServiceOttawa will implement a formal annual review procedure by Q2 2016.

Recommendation 18
That ServiceOttawa department further automate the life-cycle management of the KBAs, including but not limited to, last reviewed date, assigning SPOCs and

SMEs within the system, as well as system generated reports or other mechanisms to identify KBAs for review.

Management Response

Management agrees with this recommendation.

ServiceOttawa will include the ability to automate the review notification process as a user requirement to Information Technology Services as part of the CSM upgrade project and, will provide departments with the required access to manage their own knowledge articles by Q4 2016.

4.4   Hyperlinks within KBAs as well as references to the opposing language article do not always function.

In total, 35 KBAs out of a sample of 50 contained 129 hyperlinks. All 129 hyperlinks were tested. Each KBA's links should direct the user to the appropriate resources whether they are mapped to internal information e.g., the City's website Ottawa.ca or to external websites, e.g., MPAC.

Hyperlinks to the opposing language for all 50 KBAs (metadata) were also tested. The metadata should contain a hyperlink which brings the user to a version of same article in the other language. Regardless of the accuracy of information or if the article was necessary, we found that:

- 14% of hyperlinks of the sample articles (excludes opposing language matching articles), did not function; and,

- 8% of opposing language articles hyperlinks could not be found.

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Customer service is negatively impacted when hyperlinks do not function. Knowledge base users are unable, or take longer, to find related content to help them answer a caller's query and/or assist with resolving any further inquiries they might have. Agents may also provide incorrect information.

The Knowledge Base coordinator indicated that annual or recurring articles are not removed as it is easier to have the added information retranslated than having a new article translated and uploaded.

The CSM system's software is not compatible with MS Word documents as per our interview with the Knowledge Base coordinator. When an article is provided in MS Word, it has to be opened in NotePad. Reformatting is cumbersome as apostrophes are

converted to blanks and need to be re-entered; and, all hyperlinks are broken and must be remapped. Once reformatting is complete the coordinator can copy the article from NotePad to the CSM system. As such, uploading a new article to the knowledge base is a manually intensive process for the Knowledge Base coordinator.

Agents also indicated that upgrades to the CSM system sometimes cause some hyperlinks to be broken.

In many cases, the English article is sent to the Knowledge Base coordinator for immediate upload to the knowledge base with the understanding that the French article would follow once translated. Departmental SPOCs or SMEs are responsible to have a KBA translated and submitted and SPOCs interviewed were fully aware of this responsibility. In practice, sometimes this translation either does not occur, which supports the observation that there are more English then French articles; or, the article is not uploaded. For example, one article that was sent to Knowledge & Web Services had been provided in both French and English but six-months after it had been provided, the article found on the knowledge base was the previous French version.

Recommendation 19
That ServiceOttawa department investigate the CSM system for any functionality that would allow KBAs to be more easily uploaded to the knowledge base and not cause hyperlinks to fail.

Management Response
Management agrees with this recommendation.

ServiceOttawa will submit as a requirement, the ability to more easily upload articles to the knowledge base without breaking hyperlinks to Information Technology Services, who will work with the vendor to determine whether the upgraded version of CSM will meet the requirements. This will be completed as part of the CSM upgrade project by Q4 2016.

4.5   3-1-1 agents answer most calls without accessing the knowledge base and may not be aware of a change within a KBA.

Based on observations during sit-ins, 3-1-1 agents answer most calls without utilizing the knowledge base (used in answering 64 of 181 calls).

The knowledge base is a collection of KBAs which are pre-established information written and approved by operational areas responsible for the delivery of the specific services. As 3-1-1 agents are really generalists, the knowledge base provides them with the complete and accurate information needed to fully address a caller's request for

information or service, or in some instances where to refer the call to. In addition, the knowledge base ensures consistency in terms of information provided.

Any changes – procedural or otherwise - would be reflected in the KBA. 3-1-1 Management indicated that they expect agents to access the knowledge base every time they take a call and are therefore kept current of any changes, new procedures, etc.

The requirement that agents use the knowledge base for each call they take is an important quality assurance control that 3-1-1 Management relies on to ensure that agents have the most recent information and consistency across 3-1-1 and the Client Service Centre.

Going into the knowledge base every time to answer routine questions (e.g., is Kanata part of the City of Ottawa) would extend call durations and therefore reduce service levels unnecessarily. As agents gain experience and are exposed to thousands of calls, they start to rely on their expertise and acquired knowledge and do not research KBAs for each call. The magnitude of some of the agents' knowledge of the City's operations is truly impressive and researching the knowledge base for information an agent believes they possess is not practical during periods where the service level is not being met and there are many callers in the queue. However, as agents do not always query the knowledge base for each call, 3-1-1 needs to have a process to ensure agents are kept informed of any changes to particular KBAs. Management has indicated that senior agents notify the agents when KBAs are changed.

4.6   3-1-1 agents are trained in compliance with the training program implemented by Quality Assurance and Continuous Improvement branch.

Hiring is a relatively regular activity for 3-1-1. The Quality Assurance and Continuous Improvement branch has established a comprehensive "Client Operations branch – New Employee Training Program". A five day core training introduces new hires to the City (administrative structure, code of conduct, applicable legislations, corporate policies) and to various systems that support 3-1-1. The core training prepares new agents and summer students to respond to a limited number of call types. Post-training, 3-1-1 agents are mentored by a fellow agent.

During 2014, all 13 new hires, including 8 summer students, underwent the core training in addition to coaching sessions with the 3-1-1 coordinator. On average, 60 hours of training was provided to new hires and a total of 1,987 hours for all 3-1-1 agents (between 6 and 8.5 days of training).

Additional mandatory training relating to accessibility, health and safety, WHMIS, etc., were also completed. The job descriptions, for agents and senior agents do not require any other training. No areas of concern were observed during sit-ins with agents (e.g., where agents would benefit from additional training).

4.7 During Q4 2014, 6% of calls were re-transferred by a 3-1-1 agent back to the IVR, rather than being transferred to another City employee or outside resource, as required by knowledge base procedures.

In Q4 2014, excluding the Emergency Line calls, 3-1-1 answered approximately 108,500 calls and transferred 30,900 (28%) of these. We reviewed 105[22] of the 3,339 individual extensions or phone numbers agents transferred calls to and found that the majority of these were in accordance with KBAs instructions.

However, during Q4 2014, 20 agents transferred a total of 1,800 calls (6%) back into the IVR, rather than to a specific City extension or outside phone number. These transfers did not represent a lack of knowledge, but a workaround to gain agents an automated 10 second 'break' before the next call, as confirmed with a senior agent. The senior agent indicated that agents sometimes transfer back to the IVR in lieu of transferring callers to Community and Social Services Applicant Benefit Unit extension 81334 for English service and extension 81341 for French service as well as to Revenue branch, Tax and Water billing extension 81421 and Collection extension 81422.

When 3-1-1 agents re-transfer callers to the IVR, it negatively impacts customer service. After having waited the queue to be served, it is reasonable for a caller to expect the agent to directly transfer the call to the appropriate resource and not be asked to navigate the IVR once again.

Recommendation 20

That ServiceOttawa department ensure the practice of re-transferring callers to the IVR is discontinued.

Management Response
Management agrees with this recommendation.

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[22] 18,248 individual calls were made to the 105 extensions/phone numbers

The audit identified specific incidents of transferring calls back to the IVR instead of transferring directly to the appropriate department. Management from the 3-1-1 Contact Centre have advised staff through a written communiqué that this transfer practice is not the appropriate transfer procedure within the call centre. Recent checks by the QA&CI branch have shown that this practice is no longer an issue. QA&CI will continue to monitor for this practice through their "listening in" program. Management considers this recommendation complete.

Audit Objective No. 5:

Assess if 3-1-1 utilizes its resources efficiently and effectively to provide optimal customer-service.

The 3-1-1 agent scheduling process contains various complexities: it has three different types of agents - full-time, part-time and casual, resulting in a hierarchy for assigning shifts; there is a collective agreement that adds constraints to scheduling; and, it is a 24/7 operation.

5.1   Workforce Management software's anticipated benefits were not all achieved.

As discussed in section 6.1, the City purchased a Workforce Management software (WFM or Verint), to automate the agent scheduling process which it started using in March 2015. At the time the audit fieldwork was conducted, many scheduling processes continued to be manual, which causes inefficient workarounds. For example:

- Part-time and casual agents, who may not work each day, cannot access their schedule remotely. While Information Technology Services (ITS) informed us that the WFM has the functionality to allow agents to access their schedule remotely (e.g., from home), the City restricts access (due to internal IT policies).

- Algorithms to assign breaks and half hour eating periods to agents were not used as at June 2015. ITS indicated that breaks and lunches can be automatically assigned so that not all agents are assigned breaks at the same time.

- The WFM Data Analyst indicated that the WFM does not flag/indicate agents as unavailable and assigns shifts to them (e.g., agents on long term disability or on an acting assignment elsewhere in the City). ITS indicated that the WFM has the functionality to flag/indicate unavailable agents such as "LTD" or "not available" such that it would prevent them from being auto-assigned shifts.

- The WFM module is also not linked to SAP, which requires the maintenance of manual spreadsheets for overtime, sick leave, etc. ITS indicated that while the

WFM module has the functionality to interface employee time information with SAP, after investigation ServiceOttawa Management made the decision that the cost of building the interface from SAP to Verint outweighed the benefits. No documented support or analysis could be provided to the auditors for this decision. Therefore the WFM Data Analyst maintains overtime, sick leave data manually using Excel spreadsheets.

Prior to 2015, 3-1-1 used a manual process for scheduling employees, which involved many Excel spreadsheets. The schedules reviewed for Q4 2014 were created through this manual process.

The workforce management (WFM) system is the software tool purchased to support the WFM Data Analyst in creating and managing the schedules. The new WFM scheduling software was introduced in March 2015. The WFM draws data from the Unified Contact Center Enterprise (UCCE), which is the call handling system. It analyses patterns over time, and includes staff availability to produce forecasts and schedules. It was expected that the WFM would adapt the schedule in real time as agents' availability, call handling times or call volumes changed.

WFM was implemented to provide better service to clients by making the optimal use of available agents. Specifically, the schedule would be:

▪ Forecasted based on historical call volume and call handling time data and business rules; and,

▪ Optimized, i.e., would always provide the best possible fit between agent's availability and 3-1-1's SL target (80% of call in 120 seconds) to minimize wait time for callers.

When implementing WFM, anticipated changes included its ability to allow agents to input their preferences, request time off and received approval on-line instead of emailing the WFM Data Analyst. Other anticipated benefits were that agents could trade their shifts themselves online in the tool; view their schedule on line; receive a 5 minute reminder of their next break or lunch period; and, see all exceptions to their call-taking work (i.e.: training, coaching, meetings, etc.). Casual and part time agents with additional availability were supposed to be able to input their availability directly into the WFM tool and these preferences would be checked while the schedule was being created.

The WFM Data Analyst started using the WFM tool to create 14-day schedules using all employees and expected volumes in March 2015. The WFM tool provides a strategic forecast. While the weighting of each week can be subject to manual adjustment (e.g.,

Canada Day occurred on a Wednesday in 2015 but a Tuesday in 2014), the strategic forecast presents the anticipated call volume level for each 15 minute segment during the day, based on average handle times. Once a proposed draft schedule is generated, the WFM Data Analyst adds and removes agents.

The WFM also calculates shrinkage (number of additional agents required). Shrinkage results from absences (e.g., sick leave, training, vacation leave). Over the winter, 3-1-1 estimated shrinkage was 25% but during the spring and summer it is estimated at 32.25% during the week and 25% over the weekend. The WFM Data Analyst noted that the increase in estimated shrinkage represents the increase in sick leave used by agents during the spring and summer months. Sick leave is further discussed in Section 5.3.

The WFM does not take into account any unavailable agents (e.g., absent on long term disability or on a prolonged assignment elsewhere) and assigns them shifts. The WFM Data Analyst manually removes unavailable agents and inputs any pre-approved leave such as vacation and special leave.

The process used by the WFM Data Analyst's predecessor was to send one email to both part-time agents (who have priority) and casual agents asking for their shift preference. However, currently the WFM Data Analyst sends individual emails to all agents. Given that one of the WFM tool's anticipated benefits was its ability for agents to input their preferences, request time off and received approval on-line instead of emailing the WFM Data Analyst, this scheduling process continues to be manual and time intensive.

Part-time and casual shift selection is managed using an Excel spreadsheet as Verint does not accommodate seniority (which is a factor when assigning part-time and casual shifts). While the WFM software has the capability to generate such information, the WFM tool is not used as the information would need to be formatted to be useful, which takes approximately 1.5 hours for each schedule. We understand from ITS that there is no functionality available (either owned or available for purchase) that would allow schedules to be exported already formatted.

The downloading of schedules out of the newly implemented WFM software to be formatted in Excel and sent to agents so that they can indicate their preferred shifts, and subsequently notify them (email) of final schedules is inefficient, given that all agents have access to the tool.

Based on the current scheduling process, the WFM Data Analyst spends on average three hours formatting WFM downloads every two weeks. The WFM Data Analyst also manages overtime and sick leave through Excel spreadsheets which is inefficient.

Using WFM's functionalities such as a flag to indicate inactive/unavailable agents and an algorithm to populate lunch and breaks automatically would make the scheduling process more efficient.

ITS has confirmed that the WFM tool currently has some of the functionality to reduce manual effort however, these were not in use at the time of the audit. ServiceOttawa department has either not purchased all functionalities required, or is not using the WFM to its fullest capabilities.

Recommendation 21

That ServiceOttawa department revisit the viability of allowing agents to access their WFM schedule remotely.

Management Response

Management agrees with this recommendation.

Since the time of the audit, 3-1-1 has implemented the following functionality: forecasting schedules based on historical call volumes and trends; building schedules based on historical call trend identifying long and short term unavailability of staff and implementing agents' ability to book themselves off using the Verint tool. Currently staff cannot access this schedule remotely due to a security concern cited by the ITS department. ServiceOttawa will request reconsideration of the current decision by Q1 2016.

Recommendation 22

That ServiceOttawa department investigate if the WFM currently has the functionality required, and start using this (i.e., algorithm to populate lunch and breaks and flags to indicate unavailable agents), or evaluate the purchase of new functionality to automate processes (where benefits outweigh the costs).

Management Response

Management agrees with this recommendation.
ServiceOttawa implemented the Workforce Management tool in March 2015 and trained a new Workforce Management Analyst. Now that WFM has been implemented, is functional and the Workforce Management Analyst has used the tool for six months, ServiceOttawa will build the business rules required to automatically assign breaks and lunches to agents by Q3 2016.

5.2   Information cannot be provided to Councillors on the Consent Report because Contact Centre agents are not asking callers for their email address and whether this information can be shared with their ward Councillors.

A new procedure that requires agents to ask each caller for their email address and for their permission to share this information with their ward Councillors was introduced in January 2014. If the caller agrees, the agent reads a privacy statement to the caller. Due to MFIPPA regulations, the caller's information/concern(s) can only be added to the Daily Consent Report, if the caller agrees to share the information with his/her ward Councillor. Without the caller's approval, the information is not added to the daily Councillors' Consent Report (CSM report). Refer to Sections 1.2 and 1.4 for discussions on Consent Report.

The pre-WFM schedules were forecasted based on the previous three years, with seasonal adjustments (e.g., snow days). The WFM Data Analyst estimated that each FTE handled 112 calls per shift. This estimate was changed to 100 calls per FTE per shift in order to accommodate the Daily Consent Report, decreasing the estimate of calls answered per agents and thereby increasing costs as it likely impacts staffing levels. The extra time this takes agents resulted in lowering the estimated number of calls per FTE by 12 per shift.

However, during sit-ins with agents (181 calls) in April 2015, it was observed that agents rarely ask callers for their email address and approval to share this with their ward Councillor. This finding was also noted by Quality Assurance & Continuous Improvement branch on all five quality assurance evaluations reviewed.

While agents are aware of the requirement to obtain the caller's email for Councillors they seldom do.

Recommendation 23

That ServiceOttawa department ensure that agents ask each caller for their email address and approval to share information with their ward Councillor; or, that they revisit the need for this report with Councillors, in conjunction with recommendation 1.

Management Response

Management agrees with this recommendation.

Management, through a formal communiqué to agents, has reiterated the responsibility to ask each caller who is placing a service request if they wish to share information with the Councillor. Pending confirmation of the usefulness of the Council Consent Report, as per work to be done related to Recommendation 1, Quality Assurance will continue

to monitor whether consent requests are being made. Management considers this recommendation complete.

5.3   3-1-1 has not been staffing to its full complement, which results in accumulated overtime. In 2014, 3-1-1:

- Had an FTE vacancy rate of 10% and an employee turnover of 14%; and,

- Used more sick leave than the average for City employees.

In May of 2015, 3-1-1 began offering only eight hour shifts to agents versus the 6 hour shifts that had previously been offered. The decision to increase the length of shift was made to minimize overtime for the periods when 3-1-1 was not fully staffed. Any hours worked beyond 8 hours/day are considered overtime.

The WFM Data Analyst maintains the shift schedule for 3-1-1 agents. Once full-time employees have been assigned their shifts for the upcoming two week period, the unassigned shifts are emailed to part-time and casual employees. After part-time and casual employees have responded indicating their availability, there are often unassigned shifts remaining. In these situations, the WFM Data Analyst will ask all agents scheduled on a day with unassigned shifts if they can work a longer shift (e.g., if, between 7:00 and 19:00, any agent can come in early or stay later). The WFM Data Analyst will accept these longer shifts and enter them into the WFM system provided that the employee's weekly total overtime hours remains below 32.5 hours, the legal maximum.

The 3-1-1 coordinator has access to the real-time schedule in the WFM system. In addition, management indicated that the 3-1-1 coordinator is kept aware of the schedule by the WFM Data Analyst in regular weekly meetings, which commenced in May 2015, and through informal daily meetings. Based on these sources, the 3-1-1 coordinator is likely aware of the upcoming overtime, however formal approval of the overtime is not documented. A *3-1-1 Scheduling Policies and Protocols* document has been drafted, but has not been approved and implemented.

The City Overtime Policy (approved June 2007, revised January 2012) states that:

- A Manager may delegate essential overtime approval authority to a Supervisor;

- Justified overtime must be approved in advance by an employee at the Program Manager level or above;

▪ Notwithstanding the above, if immediate authorization is not feasible, an employee shall work overtime in an emergency situation and/or when the safety of the public is at risk.

Based on this policy, the 3-1-1 coordinator needs to approve overtime in advance as the WFM Data Analyst is not authorized to do so.

3-1-1 has not been staffing to its full complement, which may be contributing to accumulated overtime. The Client Operations branch does not maintain an overtime budget for 3-1-1 separately from the rest of the branch. Therefore while the branch overspent its overtime budget in 2014 and 2015, no actual vs. budget analysis is possible for 3-1-1's overtime. 3-1-1 uses more sick leave than the average for City employees but less than the entire Client Operations branch, which they fall under. 3-1-1 decreased its rate in 2013; however there was a significant increase in 2014.

Table 2: Sick Leave Data

Sick Leave Days per Employee[23]	2012	2013	2014
City of Ottawa	11.3	12	11.4
Client Operations branch	15.8	11	16.7
3-1-1 Contact Centre	13.7	9.4	15.7

In June 2015, 3-1-1's management identified staffing level issues stemming from agents on long-term disability and on permanent or acting assignments. For 2014, 3-1-1 had a vacancy rate of 10% and an employee turnover of 14%. Not staffing to 3-1-1's full complement likely results in an increase in overtime and additional costs to the City or increases wait-times that negatively impact on customer service. It also may have overburdened some agents, causing them to be sick more often.

Recommendation 24
That ServiceOttawa department have an authorized individual document their approval of overtime in advance, and create and implement a 3-1-1 overtime procedure.

Management Response
Management agrees with this recommendation.

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[23] Sick leave data does not include LTD

Client Operations branch has a combined overtime budget (3-1-1 and Client Service Centres) of $38,000 per year. For 3-1-1, overtime is used to address urgent situations that impact service level. The overall compensation budget is managed through the creation of a work schedule based on available funded hours. The agent schedule is developed using the WFM tool and approved by the Coordinator in 3-1-1 every two weeks. The schedule is then reviewed daily by the Workforce Management Analyst and if necessary, the Coordinator of 3-1-1. The Coordinator of 3-1-1 determines if shifts will be filled (i.e. due to staff absence) or if additional shifts will be added (i.e. due to a weather event creating sustained high call volumes and significant degradation of service level) and provides verbal approval.

ServiceOttawa will develop a departmental overtime procedure to ensure there is documentation in accordance with corporate policy by Q1 2016.

Recommendation 25

That ServiceOttawa department complete a full review of their organizational structure and staffing strategies to ensure the most cost effective and efficient methods are used to deliver service. This would include capacity modelling and costing of staff mix alternatives in addition to on-going scheduling decisions.

Management Response
Management agrees with this recommendation.

Since the time of the audit, ServiceOttawa has used the new Workforce Management tool to develop the optimal schedule of FT, PT and casual employees based on historical call volumes and seasonal trends to meet the service level. Management is currently in the process of developing a staffing plan and management structure to support the schedule to the degree possible given its current FTE complement.

ServiceOttawa will review capacity using the workforce management technology to identify required hours of service and a costing to achieve the most efficient staff utilization within the terms and conditions of the collective agreement by Q2 2016.

5.4   3-1-1's casual agents' pool corresponds to one unbudgeted FTE in SAP and does not reflect its operational requirements. In 2014, 3-1-1 posted hours equalling 3.7 FTEs against the position.

In 2014 there were ten agents in the casual pool, of which seven were there for the entire year. The current size of the casual pool makes it difficult for 3-1-1 to schedule casual agents for shorter shifts to cover peak periods.

3-1-1 has various types of agents; senior, full-time, part-time, casual, and summer student working various shift lengths, although the majority are eight hour shifts. Full time agents work 40 hours/week totalling 2,080 hours/year.

In August 2006, 3-1-1 created a casual agent pool to reduce overtime costs and to provide resources to meet peak demands. The casual pool was expected to improve 3-1-1 service to residents.

Unbudgeted positions are created by Management outside the annual budget process and are commonly referred to as "temporary". The casual agents' pool does not meet the "temporary" criterion. 3-1-1 funds its casual pool using the budget associated with vacant positions. While the casual pool is accounted for in SAP as one unbudgeted FTE (equals 2,080 hours), in 2014, approximately 7,825 hours, equalling 3.7 FTE were posted against the position.

There are many benefits to using casual pool agents. They can be used to replace full and part time employees during absences (training, annual leave, sick leave, etc.), or to meet operational peak demands. Casual pool agents can also serve as a qualified pool of candidates for the City to access to fill any future part-time or full-time vacancies. Casual agents are paid hourly wages but are not entitled to pension, benefits or vacation. They are compensated in lieu of benefits.

The flexibility of a casual pool is necessary as 3-1-1 requires additional resources to fill both planned and unplanned absences. Whereas a full-time agent equates to 2,080 hours, and part-time agent to 1,248 hours during the year, two casual agents worked approximately 1,200 hours; one worked 1,400 hours and one worked 1,800 hours during 2014. Only seven of the ten agents that were part of the casual pool were there for the entire year. As such, the casual pool may not be sufficient to meet the operational requirements of the Contact Centre during peak times. Overall, the casual pool should be included in any review of 3-1-1's organizational structure and staffing strategies (see Recommendation 25).

Recommendation 26

That ServiceOttawa department adjust the number of unbudgeted FTEs within the casual pool to reflect more closely actual operational requirements.

Management Response

Management agrees with this recommendation.

Since the time of the audit, ServiceOttawa has used the new Workforce Management tool to develop the optimal schedule of FT, PT and casual employees based on historical call volumes and seasonal trends to meet the service level. Management is

currently in the process of developing a staffing plan and management structure to support the schedule to the degree possible given its current FTE complement.

ServiceOttawa will adjust the number of unbudgeted FTEs within the casual pool to reflect more closely actual operational requirements identified by the optimal schedule given 3-1-1's current FTE complement by Q2 2016.

5.5 Most casual agents work predetermined schedules and some could claim part-time status.

The CUPE 503 inside/outside collective agreement defines a part-time employee as regularly scheduled work of 24 hours or less per week or less averaged over two bi-weekly pay periods but exclusive of replacement situations provided such replacement situations do not exceed thirty (30) consecutive working days (32.1 (a)). In 2014, part-time agents worked 8, 16 or 24 hours/week.

In 2014, one casual agent worked 1,880 hours; and, in 2013 1,800 hours. Including this agent, in 2014, three additional casual agents worked close to, or more than 1,248 hours (24 hrs/week x 52 weeks).

One of the four casual agents with the greatest number of hours worked for more than 30 consecutive working days on two occasions and another, on three occasions. The hours worked by the two agents may violate the collective agreement.

All agents' scheduled shifts for Q4 2014 were reviewed to determine the number of days that they worked. On average, full time agents worked 54 days in the 3 month period; part time agents 40 days; and, casual agents 30 days.

Hours worked by the 10 casual agents and 15 part time agents for Q4 2014 were compared. Three casual agents worked 49 days in Q4 2014 which is more than the average hours worked for all part-time employees.

Shifts of three of the four casual agents with the greatest number of hours were reviewed to determine if these agents usually worked the same days and the same shifts. One of the four casual agents was found to work the same five shifts while one worked the same eight shifts; and for the most part, casual agents work the same days weekly. For example, during Q4 2014, one casual agent consistently only worked weekdays, the same five shifts 56 times (equaling 49 days). Forty-two of these were 8 hours shifts with slightly different start times (i.e., 8:00, 8:15 and 8:30); while the other 14 shifts were half days.

While 3-1-1 had approved budgeted FTEs of 31.4 in 2013 and 30.4 in 2014, it was not staffing to its full complement throughout this period. In 2013 and 2014, 3-1-1's FTE vacancy rate was 12% and 10% respectively.

3-1-1 is using casual agents for regular work and not to cover unforeseen or intermittent work requirements. Specific to Q4 2014, eight casual agents worked the full quarter and two, the last two weeks of December. As there were relatively few casual agents, three worked as many hours as part-time agents. This may create a part-time agent relationship.

Recommendation 27
That ServiceOttawa department review the hours worked by casual agents and determine if, for some, this creates a part-time employee relationship and adjust their scheduling practices accordingly.

Management Response
Management agrees with this recommendation.

Until March 2015, development and management of the schedule was done using Excel spreadsheets. Since the time of the audit, ServiceOttawa has used the new Workforce Management tool to develop the optimal schedule of FT, PT and casual employees based on historical call volumes and seasonal trends to meet the service level. Management is currently in the process of developing a staffing plan and management structure to support the schedule to the degree possible given its current FTE complement. As part of this exercise the hours worked by casual agents will be reviewed and if required scheduling practices will be adjusted by Q2 2016.

5.6   Agents covering the overnight shift (11:00 p.m. to 7:00 a.m.) may be underutilized - answering few calls, relatively no emails and processing very few death registrations.
Employees are underutilized when the City does not obtain maximum benefit from them. There is one job description for agents and one for senior agents regardless of which shift they work. As such, the duties and responsibilities are the same for an agent that works an evening shift, an overnight shift or an agent that works a day shift. In practice however, as described below the duties and responsibilities of an agent working the overnight shift are different. The Contact Centre schedules agents on a 15 minute interval; as such our analysis of agent to call volume was performed on this interval.

During Q4 2014, out of 124,749 calls offered (i.e. calls made to 3-1-1), a total of 2,576 calls offered (handled and abandoned calls) (2%) were received between midnight and

06:59. While volumes and call types differ, in Q4 2014 during the overnight shift employees receive an average of 1.15 calls per 15 minutes (average of 0.9 calls Mon-Fri and 1.7 calls Sat-Sun) with regular extended periods with no calls (i.e., 1,086 times no calls occurred during a 15 minute period between midnight and 06:59).

During the day, between 07:00 and 18:59, the average is 26 calls per 15 minutes (average of 33.6 calls Mon-Fri and 6.9 calls Sat-Sun); and, during the evening, between 19:00 and 23:59, the average is 3.6 calls per 15 minutes (average of 3.9 calls Mon-Fri and 2.9 calls Sat-Sun).

The weekday overnight shift (23:00 to 06:59) is usually staffed by one senior agent, an employee that possesses a wide range of expertise and knowledge. During the weekends, most shifts are covered by part-time agents.

In addition to taking calls, the overnight agent is responsible for the intake of death registrations/certificates, performing a dispatch function as well as the priority line. During the last quarter of 2014, 185 death registrations were received by 3-1-1: 63 after hours during the week; and, 122 over the weekends (average of 0.7 per day received after hours during the week and 1.3 per day during weekends). As each registration takes on average between 5-10 minutes to complete, this does not represent a significant workload, but provides an important service.

There is a significant volume of emails received from members of the public as well as elected officials, which could be assigned to the overnight and evening shifts. Responding to emails is a task performed primarily by senior agents. Specifically, over the three-month period, out of 2,200 emails[24] only 10 emails were handled during the overnight shift compared to 172 handled during the evening shift.

When daytime agents respond to emails, they are taken away from answering phones during the busiest periods, which increases 3-1-1's wait time and affects service levels. Fewer resources answering calls impacts customer service negatively.

Recommendation 28
That ServiceOttawa department conduct an analysis of workload during the evening and overnight shifts to determine if there is idle capacity and consider assigning additional workload.

Management Response
Management agrees with this recommendation.

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[24] Q4 2014, emails from the public and elected officials

Since the time of the audit, ServiceOttawa has used the new Workforce Management tool to develop the optimal schedule of FT, PT and casual employees based on historical call volumes and seasonal trends to meet the service level. Management is currently in the process of developing a staffing plan and management structure to support the schedule to the degree possible given its current FTE complement and will assign additional workload (such as responding to emails) by Q2 2016.

Audit Objective No. 6:

Assess the implementation of support systems (i.e., CSM or Lagan and WFO or Verint) as they pertain to the 3-1-1.

3-1-1 uses a number of automated systems to perform its day-to-day functions. The Citizen Services Management system (CSM or Lagan); and, the Work Force Optimization system (WFO or Verint) are two key systems.

The CSM system is an integrated enterprise solution that tracks calls and service requests, provides closed loop service processes between 3-1-1 and operating departments and allows 3-1-1 (phone and email) and CSC agents (counter) to provide first-response resolution and better service to residents. Citizens can also obtain information and request services information as well as input a service request via the Web. As previously noted, it also includes a knowledge base.

To assist the City with the management of its delivery of customer service, three WFO system modules were purchased and implemented.

- Quality Management (QM): records agents calls and screens for the quality assurance process launched in 2013;

- Workforce Management (WFM): scheduling of agents, launched March 16, 2015; and,

- Desktop Process Analytics (DPA) runs in the background on agent desktops. It tracks and tags desktop application activity (e.g., SR number) so that all the calls associated with that activity can be retrieved. DPA is also used to analyze which application was used by agents.

Both systems are significant with relatively recent launches. The CSM system, with an approved project budget of $10,206,964, was launched within 3-1-1 in December 2011 and to the public in early 2012. The contract for the WFO system was approved for $804,115 and its first module was launched in 2013.

Both systems were implemented to support 3-1-1 as well as other operating departments. For example, currently, both 3-1-1 and Revenue call centres use the WFO system. Only the key components that support the functionality used by the 3-1-1 Contact Centre were reviewed during this audit.

6.1 Significant savings were identified as part of the justification for the CSM project, however an evaluation of the achievement of these savings in relation to 3-1-1, has not been completed.

Savings were a significant part of the justification for the CSM project. The City/IBM 2009 Efficiency Savings Initiative identified annual savings of $12.8 M. Supporting calculations and assumptions used to determine this amount were not reviewed as they were outside of the scope of this audit. It is expected that they will be within the scope of the OAG's planned 2015 Audit of ServiceOttawa. The City has not yet evaluated the efficiencies as the CSM project is part of a larger ServiceOttawa program.

6.2 The contract for the CSM system and implementation was competitively tendered and properly authorized.

The procurement process for the CSM system included a requirements gathering phase, a request-for-proposal issued on an electronic marketplace, amendments, bidders conference and a "Proof of Solution" demonstration. There was only one bidder and that bid was compliant. The contract with the vendor was dated March 30, 2011 and was properly authorized as it was signed by the Deputy City Manager, City Operations in accordance the City Purchasing By-law. The procurement was not audited in detail to ensure compliance with all aspects of the Purchasing By-law as this was not within the scope of this audit.

6.3 Opportunities to improve the CSM system were identified.

Performance management related functionality was one of the requirements included in the City's CSM request-for-proposal. To meet this requirement the vendor included a Business Intelligence (BI) solution in its proposal and this solution was implemented. CSM BI reports are currently used as inputs into 3-1-1 performance management information. Specifically, the Semi-Annual Performance Report to Council includes four measures which require CSM BI reports to be generated.

In addition to performance reporting functionalities, the system provides 3-1-1 with a full CSM system (e.g., knowledge base, service request, integration with the phone system, etc.). The CMS system was not reviewed to assess the extent to which it meets non-3-1-1 requirements. Several 3-1-1 functionality related issues were observed during fieldwork. Specifically:

- Knowledge base search function is limited to 10 results.

The CSM system's knowledge base, discussed in section 4.5, is the City's centralized knowledge management repository. The City implemented the knowledge base search function with a limit of the top 10 results. If the specific KBA needed by an agent does not appear in these first 10 results, they cannot click to have the system return the next 10 highest ranked results and see if the information required is there. Rather, the agent needs to spend time conducting a new search incorporating different key-words. Agents have developed workarounds and at times confer with senior agents on key-words to use to obtain the KBA they want to appear in the top 10.

The CSM system has functionality to bring back more than 10 search results. The decision to only allow 10 KBAs was a configuration decision taken by the City's implementation team. ServiceOttawa Management indicated that system experts suggested limiting searches to 10 as bringing back more results will negatively impact performance.

- Using the "find" function within a KBA causes the system to stop responding.

3-1-1 agents indicated that using the "find" function directly within a KBA causes the CSM system to stop responding. During sit-ins, it was observed that in order to find a particular term within an article, agents copy the text of the KBA to Notepad and thereafter use the Find function ("Ctrl+F") to locate the word. This is a known issue with the software that is on the Vendor's issue log.

- The CSM system slows down and stops responding.

3-1-1 agents indicated that the CSM system will slow down and have longer response times, particularly towards the end of the day. During one sit-in[25], the CSM system stopped responding altogether affecting all the agents. This did not appear to be an out of the ordinary occurrence for agents, who simply took down the caller's information using a paper form. Agents completed their call but did not take any new calls until the CSM system was "rebooted" and operational (approximately 10 minutes). Once operational, agents entered the form information into the CSM system and emailed the caller with the service request number, as applicable.

ITS indicated that on the day of that sit-in they received an electronic alert to restart the system, it was as a result of a technical infrastructure problem and that this was not logged as an outstanding maintenance issue. Management indicated that the CSM system is integrated with many backend systems. Issues with any of these systems, the network infrastructure or even the agent's desktop may cause stability issues for the

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[25] Out of 12 sit-ins with agents in April 2015

CSM system. These issues may or may not be logged on a list of maintenance issues requiring further investigation and resolution.

- The CSM system provides only Open/Closed status information on SRs.

Currently, the CMS system provides 3-1-1 agents with service requests status of either "Open" or "Closed", which often does not satisfy the information needs of the caller or emailer. As such, agents contact the operational department to obtain a detailed update of the SR's status (from the end business system) and communicate this to the caller.

End business systems (e.g., SAP or Maximo) only provide an automated status update to the CSM system when the service request is updated to "completed" in that system. Therefore, currently, the CSM system does not provide any detail as to the progress on a service request (e.g., work order assigned, scheduled, etc.). The CSM system does have the capability to receive multiple event updates from end business systems (e.g., Work Order Created, Work Order Scheduled, Work Order Assigned, Work Order inspection).

Recommendation 29
That ServiceOttawa in collaboration with Information Technology Services investigate and address if the imposed limit of 10 results for searches is still required; the "find" function within a knowledge base article causes the system to stop responding (freeze); and, the CSM system slows down and stops responding (freezes).

Management Response
Management agrees with this recommendation.

ServiceOttawa will forward the deficiencies identified by the audit: 1) Knowledge base search limit, 2) freezing and, 3) the "find" function to Information Technology Services, to confirm if these deficiencies will be addressed as part of the CSM upgrade by Q1 2016.

Recommendation 30
That ServiceOttawa department in collaboration with operating departments investigate providing additional detailed status information in the CSM system.

Management Response
Management agrees with this recommendation.

Service status is an important communication method to the public on service requests. Service status reporting was examined during the implementation of the CSM in the

ServiceOttawa Program. Enterprise statuses were not implemented in the ServiceOttawa Program due to the technical and business transformation complexity in standardizing status reporting and integrating with multiple back end systems. Management will refer the status investigation done to date through the ServiceOttawa Program to the Senior Management Committee for further consideration as part of the ServiceOttawa Program close-out process by Q2 2016.

6.4   The business case used to justify the Work Force Optimization project was not adequately compelling to justify the project.

A business case was prepared supporting the Work Force Optimization system (WFO or Verint) project which had an approved project budget of $3.6 M in 2012. Authorization of the business case was evidenced by its attachment to the Contract Approval Request (CAR) approval email from the Deputy City Manager, City Operations in November 2012.

The business case was not in and of itself adequately compelling to justify the project. The benefits set out in the business case were either "soft"; *"increasing customer satisfaction and experience; enhancing coaching, training, and performance, helping CSRs deliver a better overall customer experience"* or potentially measurable but with no targets; *"savings by improving contact centre handle times; savings by improving first call resolution; increasing CSRs availability; improving and leveraging flexible shift scheduling; gaining deeper insight into CSR efficiency/productivity; reducing workforce management administration; resulting in a more efficient and effective City administration and services"*. The business case does include a number of tables of expected costs; however the costs are only the one-time implementation costs and include only the first year of system maintenance expenses.

Business Case Development Guidelines were approved by Council in April 2014. A Project Management Policy and Framework were also created to improve the overall delivery of projects and decision-making processes with the intent that as much preliminary analysis as possible is performed on a selected project before it proceeds so that related decisions are accountable, transparent and explainable.

In May 2014, a Management Bulletin was issued requiring staff involved in the coordination, control, management and oversight of projects or changes to operational processes or service delivery to review and implement the new Project Management Policy, Project Management Framework and Business Case Development Guideline. The Guideline calls for the net present value (NPV) of the benefits and costs to be calculated where the initiative is being considered for efficiency gains.

In the 2012 WFO business case, one of the four "Benefits to Citizens" related to efficiency gains and six of the nine "Benefits to the City" related to efficiency gains. As such, it is likely that had the Business Case been developed after the 2014 Guidelines were approved by Council, a NPV of the benefits and costs would have been required.

6.5 The Contract Approval Request (CAR) did not fully disclose the rationale for the contract selection approach used to procure the Work Force Optimization system.

The Work Force Optimization (WFO or Verint) solution was contracted via an amendment to an existing contract with Bell Canada for a Voice over Internet Protocol (VoIP) solution. The VoIP contract was competitively tendered in 2007 and signed in 2010. A 2009 assessment from the Fairness Commissioner on the VoIP procurement process found no fairness issues.

Issuing a contract amendment on the VoIP contract effectively resulted in a sole-sourced procurement for over $700,000. The only two WFO solutions in the Gartner "Magic Quadrant"; Verint and a competing product, NICE, would both have worked on the City's CISCO VOIP platform. City staff gathered the City's requirements for a WFO solution. ServiceOttawa management and an ITS program manager indicated that after investigation, City staff identified which of the two leading products available in the market place best met these requirements.

We were unable to interview the Senior Policy and Purchasing officer who worked with the team through-out this process, as he retired prior to this audit. ServiceOttawa management and an ITS program manager indicated that given Verint best met the requirements, the Senior Policy and Purchasing officer recommended this contracting approach. ServiceOttawa management and the ITS program manager also indicated that the purchasing officer contacted other Verint resellers (of which Bell Canada is one) to verify the reasonableness of Bell Canada's proposed prices. The CAR was created and approved by Supply branch indicating its concurrence and approval of the approach.

The rationale for selecting Verint over NICE and for the contracting approach may have been sound, but it was not fully disclosed in the CAR that was approved by the Deputy City Manager, City Operations nor in the supporting Business Case. Neither document referred to the two possible products and why Verint was selected.

Recommendation 31
That the City document and disclose all key decisions and assumptions in Contract Approval Requests.

Management Response

Management agrees with this recommendation.

Standard procurement practice, as per the Procurement By-law, was followed in that Verint was procured through an amendment to an existing competitively completed VoIP contract. Included in the Contract Approval Request (CAR) was an explanation for why the extension of the VoIP contract was the appropriate procurement vehicle and the rationale for the selection of Verint as the business solution. Accompanying the CAR was a business case outlining rationale for the WFO but not how the specific business requirements were achieved by the identified vendor. The CAR was approved by the ServiceOttawa Program Director, the Executive sponsor, Steering Committee Chair and Deputy City Manager of City Operations as well as appropriate resources within the Procurement branch. Management considers this recommendation complete.

6.6 Work Force Optimization system functionality required by 3-1-1 was not fully implemented. Currently, there is no formalized follow-up mechanism for lessons learned and recommendations included in Project Close-out reports.

The Work Force Optimization (WFO or Verint) system implementation is almost complete, however, a key piece of WFO system functionality which captures the screens used by agents while taking calls has not been implemented. It is expected that once implemented, the quality assurance process will be improved. The Quality Management module allows for analysis of which systems are being used by agents while answering calls (Desktop Process Analytics module).

Screen capture has not yet been activated due to an issue with storing information from external systems and therefore, the solution has not been rolled out. The screen capture issue was discovered relatively late in the project and has not been fully resolved. The solution is for software to be installed to stop screen capture when a program from which the City is not permitted to store information is activated, and for screen capture to re-start once the program is no longer in use.

The challenge is that one program (i.e., Autoproc, parking ticket management system), is hosted for the Province by a third-party and the permission has not been obtained for the installation of software on the third-party's server to inform the WFO system to stop and re-start screen capture. A plan is in place to address the issue (not audited). Other systems also require that the WFO system to stop and re-start screen capture. However, these will be less challenging to resolve as those systems are housed on City servers.

As required by the City's project management methodology, a close out report has been drafted by the project team for the Communication Channel Integration (CCI) Sub-

Project, which includes the WFO system implementation project. The draft report addresses the screen capture issue described in section 6.7 above as well as other issues. It also includes a number of lessons learned and recommendations for future projects. The current plan for finalizing the report is to circulate it the ServiceOttawa Steering Committee for their information and to the General Manager Community & Social Services, the Deputy City Treasurer, Revenue, the Manager, Technology Infrastructure and the Director, ServiceOttawa for their sign off. It should then be provided to the Deputy City Manager, City Operations for final approval and disposition.

Lessons learned from individual projects were collated and then themed for presentation at the ServiceOttawa Steering committee. These will remain in the individual project close out reports for use if a similar project is contemplated in the future. These will also be referenced at a "theme level" in the final ServiceOttawa program report when all projects that were part of the ServiceOttawa program are completed at the end of 2015.

If carried out, these steps should ensure that current City managers are informed of the recommendations and lesson learned from the WFO project. However, there is no formal mechanism in the City's Project Management Policy or framework to follow-up on the recommendations and lessons learned in project close-out reports. Without this requirement there is a risk that valuable recommendations from lessons learned will not be implemented and considered in future projects.

Recommendation 32
That ServiceOttawa department implement the recommendations from the Communication Channel Integration Project Close-out report that are applicable to its on-going operations and current projects.

Management Response
Management agrees with this recommendation.

The CCI project was part of the ServiceOttawa program and the close-out report is pending final approval. Should there be recommendations that are directed to ServiceOttawa as part of the approved close-out report, they will be implemented accordingly.

Recommendation 33
That City Manager's Office update the City's project management methodology to require a review of all corporate applicable previous lessons learned in the initiation of all new projects.

Management Response

Management agrees with this recommendation.

As part of the City's project management methodology, staff are required to complete a set of mandatory project deliverables, one of which is a Project Close-out Report. One element of this report is the documentation of lessons learned from the project, including the capture of any formal recommendations from project post-mortem or lessons learned sessions. The City also has a Project Management Community of Practice, which has membership from all City departments, and regularly uses the forum to share knowledge and project successes, challenges and lessons.

The Corporate Programs and Business Services department will update the City's project management methodology by Q2 2016 to require a review of all corporate applicable previous lessons learned in the initiation of all new projects.

Audit Objective No. 7:

Assess the status of implementation of the 2007 Audit of the 3-1-1 Contact Centre recommendation (incomplete during the 2009 Follow-Up Audit) "That 3-1-1 management follow through on Council's direction to investigate the possibility of outsourcing the 3-1-1 Contact Centre."

7.1   The audit recommendation to complete an outsourcing review of the 3-1-1 Contact Centre has not been completed.

A motion approved during the 2005 budget deliberations directed staff to investigate the possibility of contracting out the Contact Centre using a private sector comparator, and report back to Corporate Services and Economic Development Committee no later than September 2005. In the 2007 Audit of the 3-1-1 Contact Centre, the OAG made the recommendation "That 3-1-1 management follow through on Council's direction to investigate the possibility of outsourcing the 3-1-1 Contact Centre. This should be done in parallel with the other recommendations outlined in this report".

The implementation statuses of the recommendations made in the 2007 audit were followed up by the OAG in 2009. The 2009 follow-up audit found that this recommendation was incomplete. Management agreed with that assessment. In the 2009 audit report, management's response was:

> *"Given the Service Excellence strategy proposed within the 2010 Budget, which includes a 3-1-1 Optimization project, it would be premature to review contracting out further at this time. The current plan is to present a report to CSEDC in Q1 2011 once the service delivery model has been defined through the 3-1-1 Optimization project.*

This report will be in response to both the Council Motion, as well as this recommendation."

In November 2011 a recommendation was accepted by Council that it was not appropriate to conduct this analysis during the following 3 years while the ServiceOttawa program was being implemented.

During this audit, ServiceOttawa Management indicated that at the time of the original recommendation, the City was examining new channels to deliver its services and re-doing its business model. Therefore they wanted to understand the new process before looking at outsourcing it. At that time, they believed that this would be completed by 2011. Since then, the business model has changed to one with an integrated network of call centres. This model may even move to one call centre. Examining this move to one call centre is in the 2015 business case, however has not been completed. ServiceOttawa department will assess all channels (phone, counter) in the one business case. The business case will look at what is feasible and their costs and benefits. Outsourcing will be one option in the Business Case. Collective Agreements will impact on the outsourcing option.

Recommendation 34
That ServiceOttawa department investigate the possibility of outsourcing the 3-1-1 Contact Centre.

Management Response
Management agrees with this recommendation.

Within Council's Strategic Plan for 2015-2018, Council has identified Phone and Counter service delivery as a priority. ServiceOttawa will explore alternative service delivery methods, one of which will be outsourcing, as part of a business case. Options will be recommended to Senior Management and Council as applicable based on findings by ServiceOttawa Management in the business case in Q4 2016.

Occupational Health & Safety
No occupational health and safety concerns were identified during the audit.

Potential Savings
No quantifiable potential savings were identified during the audit. Notwithstanding, numerous recommendations had been made to automate processes, which, if implemented would create efficiencies for 3-1-1 operations.

Conclusion

The City's 3-1-1 Contact Centre provides a valuable service to Ottawa residents, as well as elected officials. It was observed that 3-1-1 agents are motivated, knowledgeable, dedicated and highly service-oriented.

In 2011, the Citizen Services Management (CSM) system (i.e., Lagan) and in 2013, the Work Force Optimization (WFO) system (i.e., Verint) were purchased and implemented to streamline processes through the automation of day-to-day operations.

A number of opportunities for better-supporting 3-1-1 Contact Centre agents in delivering a high quality of service were identified. Specifically, the City should ensure that agents have access to up-to-date knowledge base articles in all areas of City operations relevant to residents; processes for reviewing and promoting knowledge base access and educating possible users should be established; and training and coaching in support of quality assurance evaluation should be managed in a timely, efficient and effective manner.

In addition, there are a number of opportunities for 3-1-1 Management to implement improved operational processes, all of which can support improved service delivery and caller/resident satisfaction. Specifically, service level standards should be clearly communicated and understood by Council, and these should reflect Council priorities. Additional work is required to ensure that the various IT systems (i.e., Lagan, Verint) that support 3-1-1 delivery are utilized to the extent that this is cost-effective. Client Operations branch need to ensure that human resource practices currently being used are consistent with relevant legislation(s) and collective agreements and that staffing levels and workload are optimized to meet service level standards.

The City's policies and procedures related to notifying Councillors of emerging issues in their wards are clear, consistent and generally adequate.

We noted opportunities to provide Council and Senior Management with more relevant information. The Semi-Annual Performance Report to Council does not provide important customer satisfaction metrics including: disclosure that calls abandoned within 120 seconds are considered answered; the average wait time of calls answered after 120 seconds; or how many calls are abandoned; and does not report on email service levels lessening its value to Senior Management and Council. The Councillor Consent reports are of limited value in their current format and can be improved or replaced with the use of Open Data. There are also opportunities for management to solicit Councillors' areas of interest with respect to information received from 3-1-1.

Lastly, the possibility of outsourcing the 3-1-1 Contact Centre should be investigated.

Acknowledgement

We wish to acknowledge our appreciation for the cooperation and assistance afforded the audit team by management.