

Customer Care

Internal Audit Report

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EXECUTIVE SUMMARY

Why We Did This Audit

The objective of this audit was to evaluate the efficiency and effectiveness of the Customer Care function.

This audit was included in the 2020-2021 Annual Audit Plan.

Observations and Conclusion

Audit Results at a Glance			
	Risk / Impact Rating		
Results and Observations	Significant	Moderate	Minor
IA - Internal Audit M - Management	IA - 2	IA - 1	-
O - Opportunity D - Deficiency	O - 1 D - 1	D - 1	-

Our overall conclusion is that the Customer Care department had an efficient and effective support function as they closed most tickets in five days or less. They use an online service request system with multiple capabilities, which allowed them to get the job done quickly and properly. In addition, their personnel had the necessary skills and competencies, both technical and procedural, to perform service desk tasks.

However, we noted opportunities for improvement as described below.

Results and Recommendations

Through a contract for additional help-desk services, the department essentially had two service desk units operating parallel for 19 months. These extra services were later determined to be unnecessary and not cost effective and ITS terminated the agreement eight months early.

We also noted that ITS has not implemented the online service request system's SLA and management reporting features and that the system allows users to input a ticket resolution date that precedes the ticket's date of creation.

We recommend that:

The ITS Department improve its oversight of contractual agreements, purchase orders (PO) and invoices of contractors with whom the ITS Customer Care department engages.

Activate Service Level Agreement (SLA) functionality after implementing the *Power BI* application.

Adhere to the Call Resolution Process when working with a service request and create a notification alert for tickets that are waiting for an approval to move to the next phase in the ticketing workflow.

We discussed this report with management and they have prepared their response that follows.

DEFINITIONS:

Risk / Impact Ratings

Minor	Low risk with a financial impact of less than one percent and/or an isolated occurrence limited to local processes (low impact and low likelihood)
Moderate	Slight to moderate risk with a financial impact between one and five percent and/or a noticeable issue that may extend beyond local processes (low impact and high likelihood or high impact and low likelihood)
Significant	High risk with a financial impact greater than five percent and/or a significant issue that occurs in multiple processes (high impact and high likelihood)

We use three risk/impact ratings:

- *Minor*
- *Moderate*
- *Significant*

Observations Categories

Opportunity	A process that falls short of best practices or does not result in optimal productivity or use of resources
Deficiency	A shortcoming in controls or processes that reduces the likelihood of achieving goals related to operations, reporting and compliance

We categorize observations as opportunities or deficiencies.

Criteria for Observations Sourced to Management

- Internal audit was informed of the issue prior to starting detailed testing
- Management identified, evaluated, and communicated the issue to appropriate levels of the district
- Management has begun corrective action with clear, actionable plans and targeted completion dates

None of these findings was sourced to management.

BACKGROUND:

The Customer Care function provides support to all district employees and students from three different perspectives: application services, technical services, and professional services. Customer Care implemented a new online service request system called EasyVista in March 2019 on a Software as a Service (SaaS) platform to manage all customer support requests. Customer Care handled (includes all ticket actions) 26,339 service requests during fiscal year 2019-2020.

OBJECTIVE, SCOPE AND METHODOLOGY:

Objective

The objective of this audit was to evaluate the efficiency and effectiveness of the Customer Care function.

Scope

The audit addressed Customer Care operations during fiscal year 2019-2020.

Methodology

We included specific steps in our audit procedures to determine what controls exist to prevent material errors or irregularities and we were alert to indicators of fraud. Specifically, we:

- Divided the audit fieldwork into three areas: Customer Care Operations, Customer Care Contract Analysis¹, and Customer Care Data Analysis²;
- Interviewed personnel from the Customer Care department and contractors or consultants;
- Analyzed contracts and statements of work (SOW);
- Documented and evaluated processes and procedures; and
- Obtained all service ticket data and used IDEA Analysis software tool to perform data analytics testing.

¹ We reviewed various aspects of the contract between Customer Care and contractors.

² We performed various analytic tests to evaluate performance.

Customer Care handled 26,339 service requests in FY 2019-2020.

We evaluated the efficiency and effectiveness of the Customer Care function.

Our scope included Customer Care operations during fiscal year 2019-2020.

Our methodology included dividing the audit fieldwork into three areas:

- *Customer Care Operations*
- *Customer Care Contract Analysis*
- *Customer Care Data Analysis.*

We conducted this audit in accordance with the *International Standards for the Professional Practice of Internal Auditing* of the Institute of Internal Auditors and included such procedures as deemed necessary to provide reasonable assurance regarding the audit objective. Internal Auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

We are required to note any material deficiencies in accordance with Florida Statutes, School Board Policy and sound business practices. We noted no material deficiencies. We also offer suggestions to improve controls or operational efficiency and effectiveness.

RESULTS & RECOMMENDATIONS:

Overall Conclusion: Our overall conclusion is that the Customer Care department had an efficient and effective support function as they closed most support tickets in five days³ or less. They use an online service request system with multiple capabilities, which allowed them to get the job done quickly and properly. In addition, their personnel had the necessary skills and competencies, both technical and procedural, to perform service desk tasks.

However, we noted opportunities for improvement and the details of our findings and our recommendations follow.

1) Oversight of contractor activities, agreements, PO's and invoices

Significant impact

Best Practice:

Safeguard district resources by:

³ 72.26 percent of the tickets.

We conducted this audit in accordance with the International Standards for the Professional Practice of Internal Auditing.

We noted no material deficiencies.

- Performing careful analysis of current functions and activities (including but not limited to previous workloads or work performance, estimated costs, duplication of services, etc.) before agreeing to terms with a contractor;
- Paying for services only after they are performed; and
- Ensuring agreements, purchase orders and related invoices have accurate information to the extent that everything agreed upon in the agreement is documented⁴. This, so both parties know their accountability.

Audit Result:

In the fall of 2018 the ITS department (under previous leadership) contracted for managed services for service desk operations. The original agreement was for the period from November 14, 2018 through February 2021. The agreement provided for fixed monthly fees of \$60,483.64, commencing December 1, 2018, for the first six months and \$52,477.04 for the remaining months for a total contract value of \$1,412,442.64 over 27⁵ months. As a result, the ITS Department essentially had two service desk units running parallel. Due to significant changes in management of the ITS Department, there was little oversight over the contracted services, especially in the first year of the contract.

From our analysis of the contractor's agreement, the Customer Care budget, all related PO's and invoices, we noted the following:

- At the time the contract began, the district used a service ticket system called HEAT, and was in the process of implementing a new system called EasyVista.
- The contractor did not work any HEAT tickets and was not involved in the EasyVista implementation.
- The first use of the EasyVista system was on March 11, 2019.

Best practices for contract engagement and management.

ITS contracted for managed service desk operations

There were essentially two services desks units running parallel.

When the managed service desk contract began, the district was in the process of implementing a new service ticket system.

⁴ Meaning items or tasks, deliverables, amounts and all relevant information.

⁵ Although the original agreement was for 27 months, ITS management terminated it after 19 months.

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- The district paid the contractor in advance for the first seven months' fees (December 2018 – June 2019). The advance payment of \$415,375.00 amounted to 30% of the contract value.
- It is not clear what services the contractor performed during the period from December 1, 2018 until they worked their first EasyVista ticket **after** March 11, 2019.
- We noted that eight of the 13 contractor invoices (62%) we reviewed did not have a clear description of the work performed.

Because the contractor performed some services that were not being performed by district staff (telephony support) and some that duplicated them (technology support), in order to have a complete and fair analysis we selected and analyzed both groups' technology support tickets from the online service request system's data and data from SAP to evaluate:

- the contractor's activity (worked tickets),
- the cost of contracted services per ticket, per month, and
- the cost of extra service hours⁶ for the duration of the SOW

Here are financial and performance statistics for FY 2019-2020:

Customer Care Function Statistics for Technology Support tickets		
Category	Contractor	Customer Care Department
Monthly Cost	\$9,445.87	\$21,494.01
Yearly Cost (on a 12 month basis)	\$113,350.44	\$257,928.14
Tickets worked in FY 2019-2020	1,614	9,769
Days on which tickets were worked	242	298
Average tickets worked per month	135	814
Average tickets worked per day	7	33

We determined the cost per ticket, per month, by obtaining data of all tickets worked by the contractor and by Customer Care staff during fiscal year 2019-2020 and dividing the contractor's fixed monthly payment of \$9,445.87 and the Customer Care department's monthly

The district paid seven months' fees in advance.

*The contractor worked no tickets until **after** March 11, 2019.*

Eight out of the 13 contractor invoices [62%] did not have a clear description of the work performed.

We analyzed EasyVista system data and compared budget, days worked, tickets worked, and cost per ticket, among various things between the contractor and the Customer Care.

⁶ From 7:00 a.m. to 7:30 a.m. and from 4:31 p.m. to 7:00 p.m.

budget of \$21,494.01 by the total number of tickets each group worked each month. Our results are displayed below.

Figure 1 – Technology Support worked tickets and cost difference between Customer Care and Contractor for FY 2019-2020

See also Graph 1 in Appendix

MONTH	CC TICKETS WORKED PER MONTH	CC - COST PER TICKET WORKED PER MONTH	CONTRACTOR TICKETS WORKED PER MONTH	CONTRACTOR - COST PER TICKET WORKED PER MONTH
01 - July	829	\$25.93	241	\$39.19
02 - August	1,798	\$11.95	201	\$46.99
03 - September	1,043	\$20.61	71	\$133.04
04 - October	785	\$27.38	103	\$91.71
05 - November	585	\$36.74	36	\$262.39
06 - December	417	\$51.54	61	\$154.85
07 - January	715	\$30.06	113	\$83.59
08 - February	491	\$43.78	71	\$133.04
09 - March	860	\$24.99	190	\$49.72
10 - April	718	\$29.94	223	\$42.36
11 - May	833	\$25.80	190	\$49.72
12 - June	695	\$30.93	114	\$82.86
	<u>9,769</u>		<u>1,614</u>	

We compared the contractor's and the Customer Care department's cost per ticket and summarized our results below:

Figure 2 – Technology Support ticket cost difference between Customer Care and Contractor

See also Graph 2 in Appendix

MONTH	CC - COST PER TICKET WORKED PER MONTH	CONTRACTOR - COST PER TICKET WORKED PER MONTH	DIFFERENCE [CC vs Contractor]	UNIT WITH LESS TICKET COST
01 - July	\$25.93	\$39.19	-\$13.26	Customer Care
02 - August	\$11.95	\$46.99	-\$35.04	Customer Care
03 - September	\$20.61	\$133.04	-\$112.43	Customer Care
04 - October	\$27.38	\$91.71	-\$64.33	Customer Care
05 - November	\$36.74	\$262.39	-\$225.65	Customer Care
06 - December	\$51.54	\$154.85	-\$103.31	Customer Care
07 - January	\$30.06	\$83.59	-\$53.53	Customer Care
08 - February	\$43.78	\$133.04	-\$89.26	Customer Care
09 - March	\$24.99	\$49.72	-\$24.73	Customer Care
10 - April	\$29.94	\$42.36	-\$12.42	Customer Care
11 - May	\$25.80	\$49.72	-\$23.92	Customer Care
12 - June	\$30.93	\$82.86	-\$51.93	Customer Care

ITS management terminated the agreement eight months early because they determined that the contractor's services were not needed.

On a per ticket basis, the Customer Care department was more cost effective than the contractor was.

From our analysis of this information, we noted the following:

- The Customer Care department worked six times as many tickets as the contractor during fiscal year 2019-2020. (Please see Graph 1 in Appendix.)
- The Customer Care department had a lower cost per ticket in all of the 12 months of fiscal year 2019-2020. (Please see Graph 2 in Appendix.)
- Because the district paid the contractor a fixed monthly fee, when they worked more tickets, the cost per ticket went down and when they worked fewer tickets, the cost per ticket went up.

ITS terminated the SOW at the end of fiscal year 2019-2020. The Customer Care Department proved to be the more cost effective option.

Extra service desk hours not cost effective – See Graph 3 in Appendix.

The contractor's SOW indicated that they would provide IT desktop support to end users between the hours of 7 a.m. and 7 p.m. Monday through Friday excluding holidays. The Customer Care department operates from 7:30 a.m. to 4:30 p.m. on those same days.

We analyzed data for technology support tickets worked by the contractor during the extra hours of service (from 7:00 a.m. to 7:30 a.m. and from 4:31 p.m. to 7:00 p.m. We found that the contractor worked 75 tickets during those hours on 58 of the 242 possible workdays in fiscal year 2019-2020.

The cost of having extra resources worked these tickets during increased hours of service during that timeframe for FY 2019-2020 was approximately \$6,848.64. We calculated this by multiplying the extra hours worked per day (3.0 hours) by the contractor's cost per hour as explained below:

- \$9,445.87 (fixed monthly fee payment for technology support⁷ tickets) / 240 hours per month⁸ = \$39.36 per hour.

⁷ According to EasyVista ticket category.

⁸ 12 hours * 5 days a week = 60 hours per week; then 60 * 4 weeks = 240 monthly hours.

The Customer Care department worked six times as many tickets as the contractor.

Customer Care was the more cost effective option.

The contractor's SOW included three extra hours of service desk coverage each day.

The contractor worked 75 tickets during the extra service hours on 58 of the 242 possible workdays.

The cost of extra resources for technology support tickets during increased hours of service during FY 2019-2020 was approximately \$6,848.64.

- $\$39.36 \times 3.0 \text{ hours} = \118.08 per day for extra hours of service (from 7:00 a.m. to 7:30 a.m. and from 4:31 p. m. to 7:00 p. m.).
- $\$118.08$ per day of extra service hours \times 58 days = \$6,848.64.

ITS management noted that the incremental cost of this contract for the extended service hours for the small volume of tickets was not cost effective and that services were duplicated and unnecessary. As a result, they ended the agreement as of June 30, 2020.

Recommendation:

Exercise oversight of agreements and contractor activities to obtain an improved return on the investment, better management of district funds and resources, and better compliance by the vendor.

2) Activate Service Level Agreements (SLA) in the online service request system. *Significant impact*

Best Practice:

It is useful for units that work in the customer service environment to have metrics, key performance indicators (KPI's) or SLA's that can measure their performance.

Audit Result:

According to the Project Manager of the online service request system, the system has the ability to establish SLA's and track performance against them, but they have not yet been configured. We noted the following features of the system:

- It has the capability to conduct monthly surveys, but only for employees that issued ten or more tickets during the month (i.e. - Month 1 – 11 tickets submitted = one survey; Month 2 - 13 tickets submitted = one survey; Month 3 - 9 tickets submitted = no survey);
- Management reports are available from the system, but they are not used because they do not meet management's needs; and
- The department has not implemented any metrics or SLA's.

To address the need for management reports, the department plans to start a third phase of the online service request project called *Reporting*

The price per day of extra hours was \$118.08.

The incremental cost for extended service hours was not cost effective for the small volume of tickets.

SLAs help in evaluating performance.

The EasyVista system has the ability to establish SLAs and track performance against them.

Management reports from the EasyVista system are not used because they do not meet management's needs.

Access in the second quarter of 2021, in which they will implement a software called *Power BI*. This will enable the development of management reports that meet the department's needs with the next step being to establish SLAs to track in those reports.

Recommendations:

After implementing *Power BI*, establish metrics to track in management reports and SLAs to evaluate performance.

3) Adhere to the ITS department's procedure *Call Resolution Process* when working with a service request. *Moderate risk*

Best Practice:

ITS established a *Call Resolution Process* that outlines the steps staff are to take when working a service request. The *Call Resolution Process* includes the following:

- Service Center staff enter all received requests into the Service Request database;
- Staff analyze the request to determine if it can be resolved by the Service Center;
- The Service Center provides the customer with the Service Request Number and either enters the resolution description into the Service Request Database or escalates the Service Request to the appropriate group for resolution. In the latter case, the assigned group resolves the issue and enters the resolution description into the Service Request database;
- The resolution is given to and agreed upon by the customer; and
- The staff closes the Service Request.

Following the *Call Resolution Process* helps to ensure reliable data that can be used to evaluate how effectively the department performs its function. The length of time between a service request and its resolution is a common measure of service desk performance. However, this measure is only reliable when the dates in the system are valid and unalterable. Notification alerts for those tickets that are waiting for an

Management intends to develop reporting capabilities through another software program called Power BI.

The ITS department's Call Resolution Process outlines the steps to take when working a service request.

The first step establishes that the Service Center staff enters all received requests into the Service Request database. In other words, a ticket (request) needs to be created first.

Data on all systems needs to be complete, available and reliable.

approval to move to the next phase on the ticketing workflow also help shorten time needed to resolve tickets.

Audit Results:

Ticket resolution date precedes ticket creation date –

We analyzed the number of days between the creation and resolution of service tickets and we noted 32 records where the ticket was closed before it was entered (created) in the system. The following chart indicates by how many days the resolution preceded the ticket creation (days are negative):

Figure 3 – Records where resolution date precedes creation date

DAYS BETWEEN CREATION AND SOLUTION	RECORDS
-24	1
-15	1
-8	1
-6	1
-5	3
-4	1
-3	2
-2	2
-1	20
	<u>32</u>

According to personnel from the Customer Care department, the system allows staff to input any resolution date to a ticket, even a date prior to the date the ticket was created.

Tickets taking more than 60 days to resolve – See Graphs 4 and 5 in Appendix.

We also analyzed tickets that took more than 60 days to resolve and noted 172 (.7%) of 25,978 closed tickets that took more than 60 days to resolve. The district’s Customer Care staff handled eighty-nine of these tickets and the contractor handled eighty-three.

We noted 32 records where the resolution date entered in the system precedes the date the ticket was created.

The ticket with the greatest disparity was -24, meaning that the ticket was created 24 days after the solution date was entered into the system.

One hundred seventy-two tickets took more than 60 days to resolve.

Customer Care's 89 tickets over 60 days had resolution dates ranging from 61 to 394 days. The contractor's 83 tickets over 60 days had resolution dates ranging from 61 to 377 days.

Customer Care department personnel stated that the time lapse between tickets in the system occurred because they did not have approval of the requestor's supervisor for the action that was requested in order to move the ticket through the system's workflow.

Recommendations:

- Follow the *Call Resolution Process* when creating and working a service request;
- Change the online service request system programming to prevent users from entering a solution date that precedes the creation date, therefore preserving the integrity of the data; and
- Create a notification alert (could be an email) within the Service Request System to let the technician and the person in charge of the approval of the action know that the ticket is still pending an action to move towards the next phase in the ticketing workflow.

We wish to thank all the Customer Care Department personnel (including contractors) for the cooperation and assistance we received in the course of this audit.

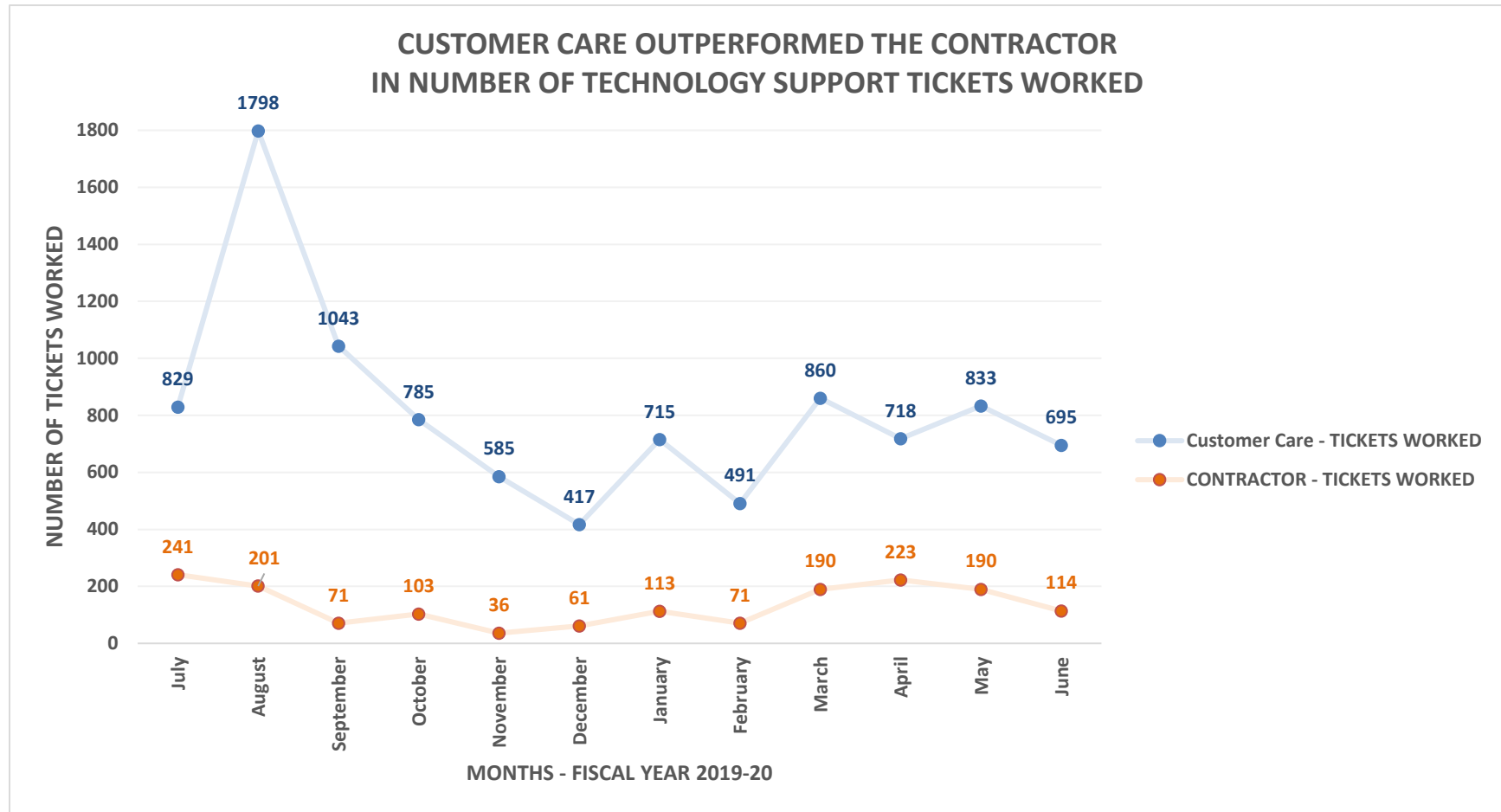
Adhere to the Call Resolution Process when working with a service request

Prevent solution dates that precede creation dates.

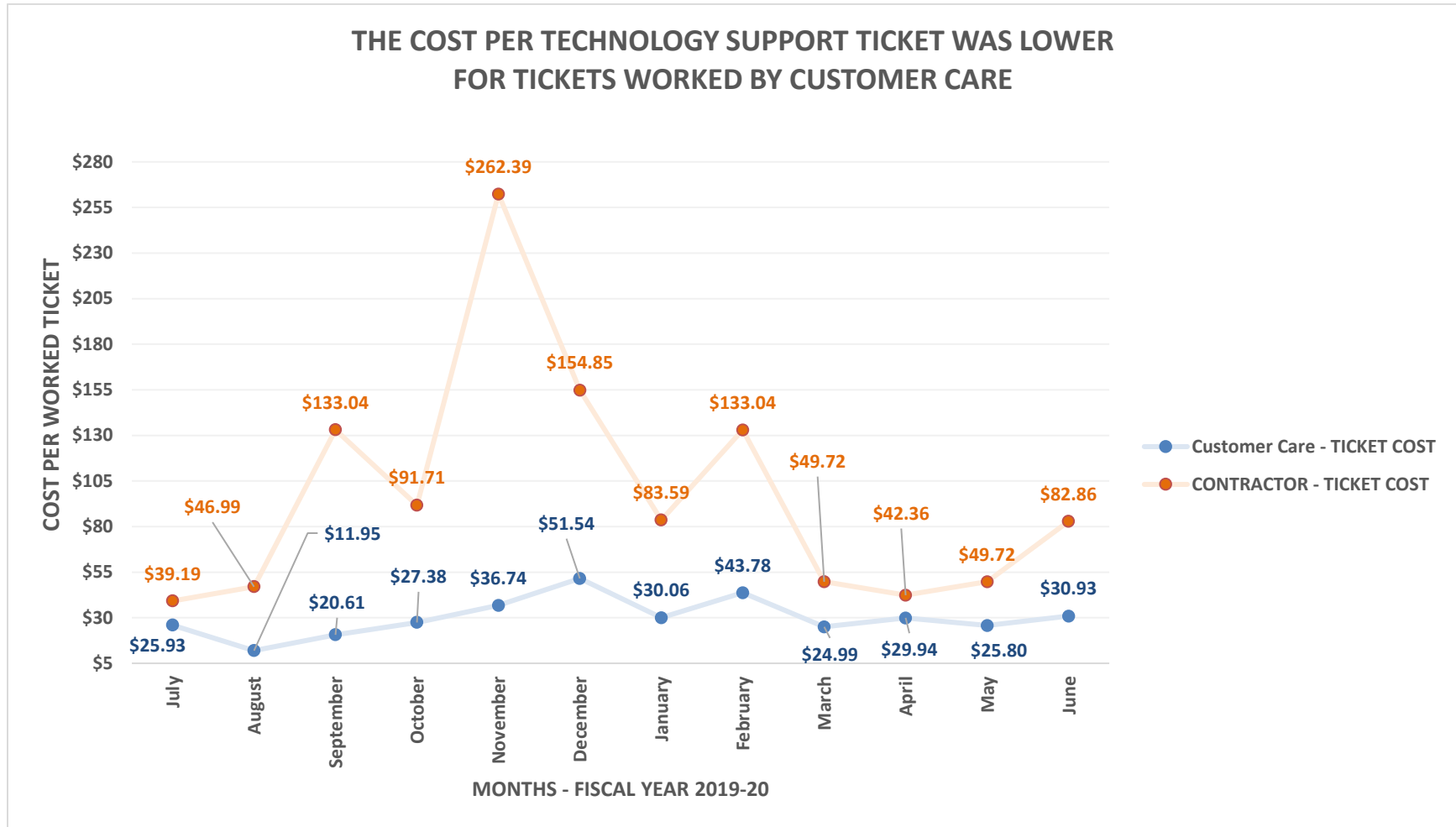
Create a notification alert for tickets that are waiting for an approval to move to the next phase in the ticketing workflow.

Appendix 1 – Online Service Request System Data Analysis Graphs

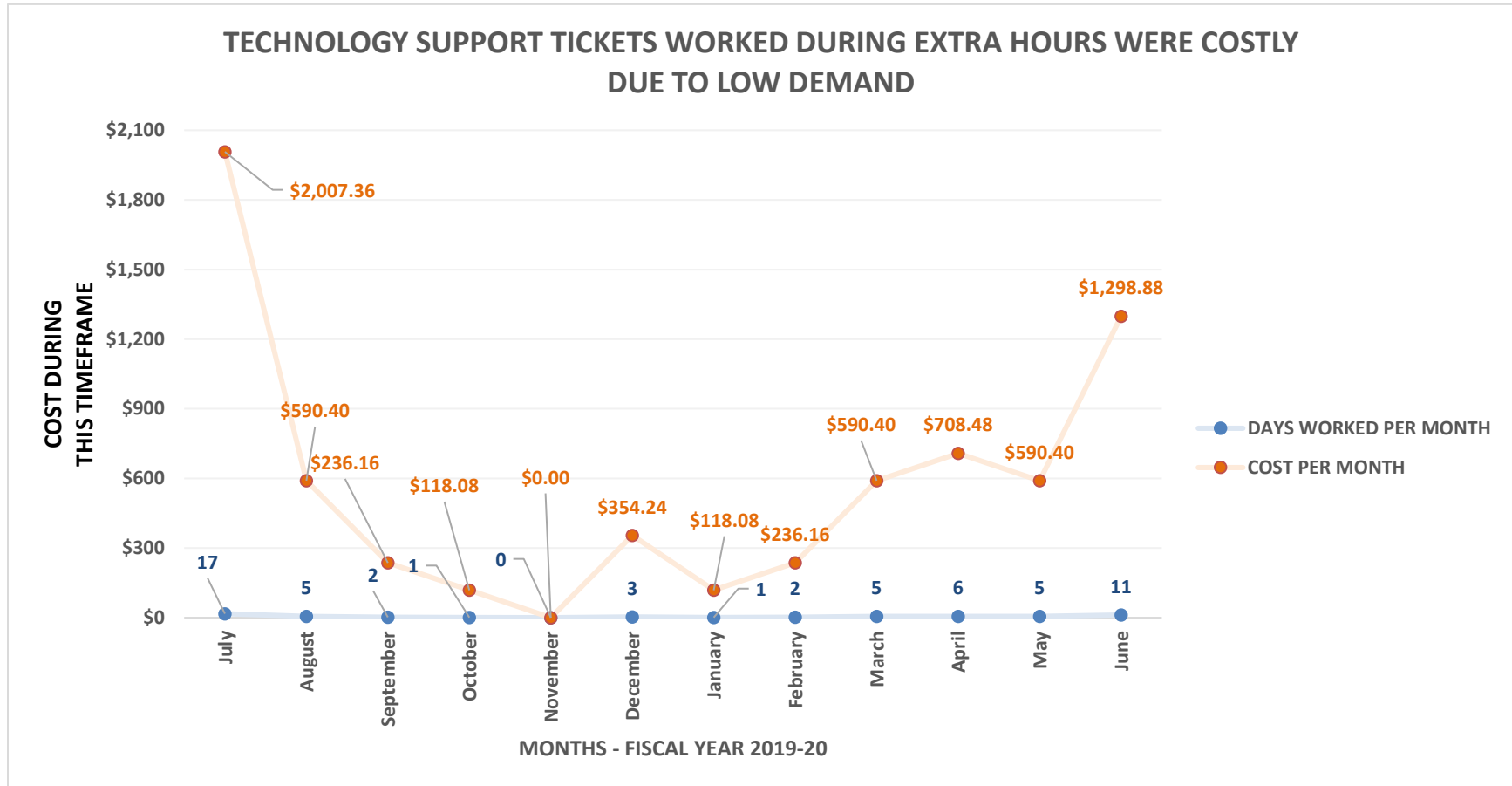
Graph 1 –Technology Support Tickets Worked During Fiscal Year 2019-20



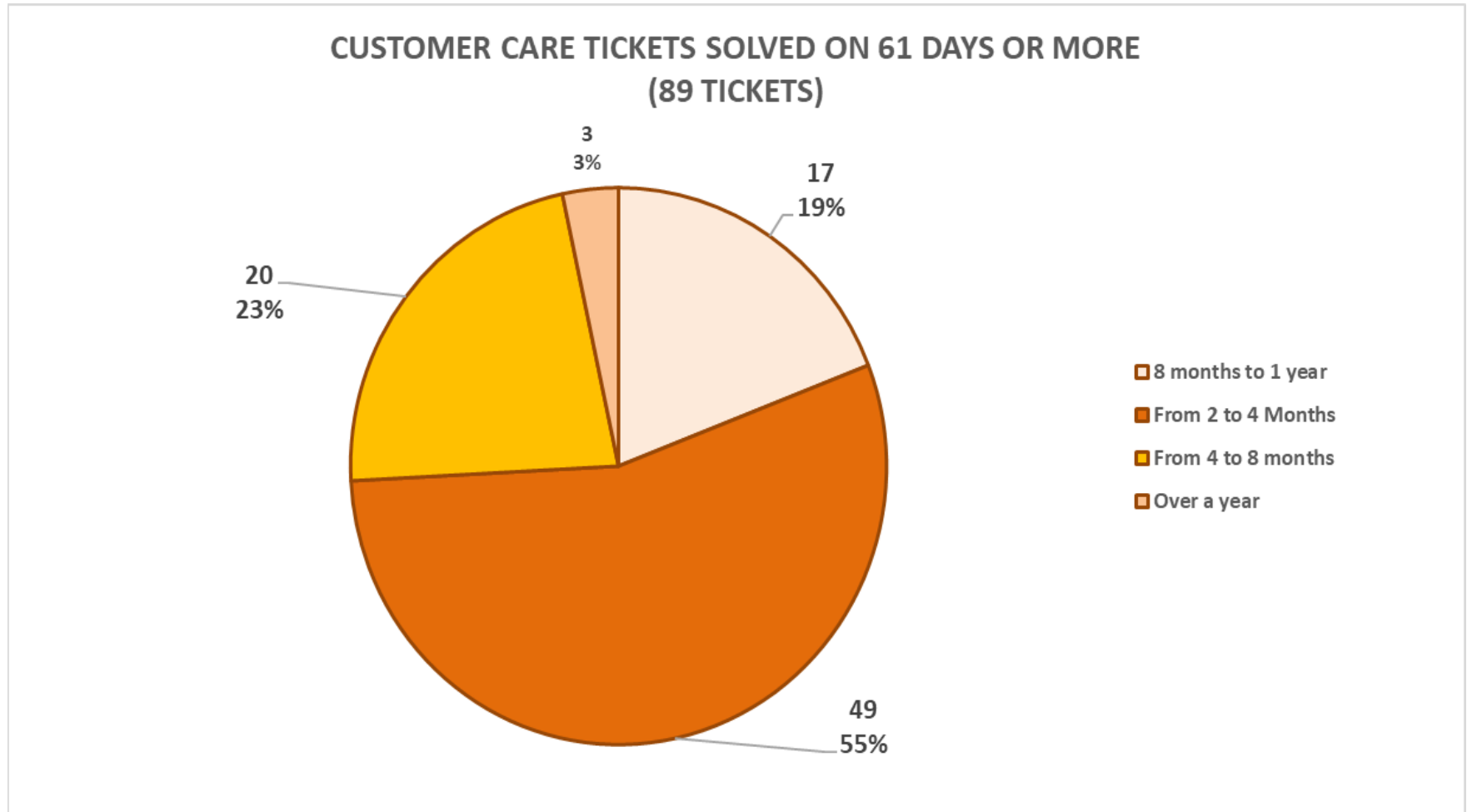
Graph 2 – Comparison of Technology Support Ticket Cost During Fiscal Year 2019-20



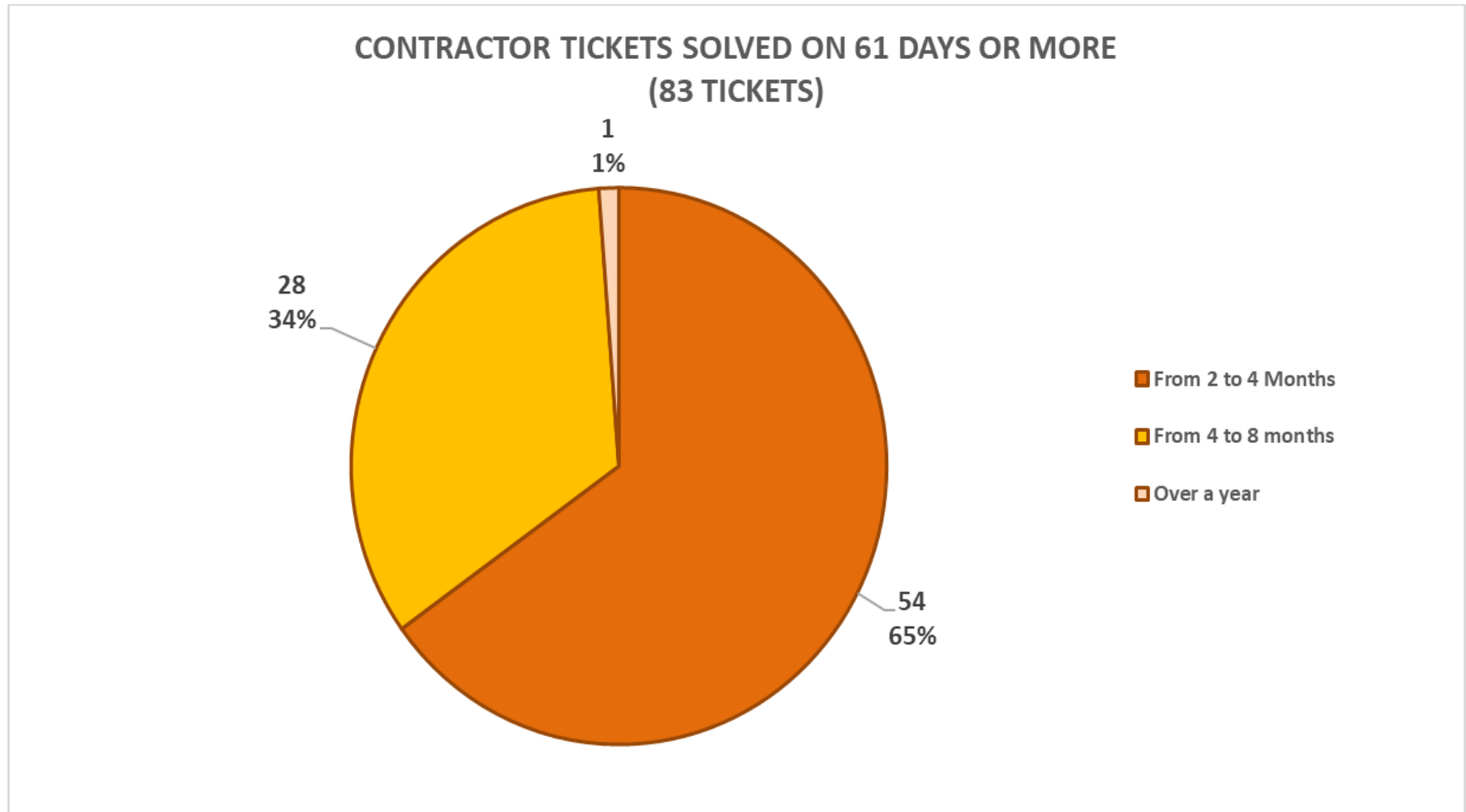
Graph 3 – Analysis of Cost of Extra Resources during Fiscal Year 2019-20



Graph 4 - Frequency of Tickets Resolved by Customer Care



Graph 5 - Frequency of Tickets Resolved by the Contractor





Department / School Name	ITS Customer Care
Administrator / Department Head	Serena Chapman. Sr. Director
Cabinet Official / Area Superintendent	Robert Curran, CIO

Audit Result / Recommendation	Management Response Acknowledgement/ Agreement of Condition	Responsible Person (Name & Title) And Target Completion Date (MM/YYYY)	Management's Action Plan
Oversight of contractor activities, agreements, PO's and invoices. / Exercise oversight of agreements and contractor activities to obtain an improved return on the investment, better management of district funds and resources, and better compliance by the vendor.	Agreed. Proper measures have been taken to avoid these issues.	Serena Chapman – Sr. Director – Item Complete	Complete. Under new leadership, invoices were no longer paid in advance of services, detail was asked to be added to invoices and increased oversight was added, which led to the cancelation of the contract early.
Activate Service Level Agreements (SLA) in the online service request system. / After implementing <i>Power BI</i> , establish metrics to track in management reports and SLAs to evaluate performance.	EasyVista added filtering to the existing reports in March 2021. That change enabled us to gather the metrics necessary for our department.	Brian Downey – Sr. Manager - May 2021 Brian Downey – Sr. Manager - September 2021	Purchase all Software and Licenses needed to implement Power BI. – Completed Develop a manager dashboard to measure KPI's – Initial dashboard has been developed, currently in the review process of the project.
Adhere to the ITS department's procedure <i>Call Resolution Process</i> when working with a service request. / Follow the <i>Call Resolution Process</i> when creating and working a Service Request (SR);	The Call Resolution Process is being followed.	Brian Downey – Sr. Manager - July 2021	Review the Call Resolution Process with the staff.



<p>Change the online service request system programming to prevent users from entering a solution date that precedes the creation date, therefore preserving the integrity of the data;</p>	<p>The system is working as designed by the vendor. The creation date is the date that the Service Request (SR) was entered. The resolution date can be before the creation date if the SR was entered later. We are unable to modify the vendor's program, but will address this in our dashboard and reports, which will calculate the days open as 0 days.</p>	<p>Brian Downey – Sr. Manager - September 2021</p>	<p>The system is working as designed by the vendor for support scenarios. However, any help desk ticket should be submitted as the issue is worked and Help Desk will be reminded of this. Our dashboard reports will adjust for this so that information about the department's performance is reliable.</p>
<p>Create a notification alert (could be an email) within the Service Request System to let the technician and the person in charge of the approval of the action know that the ticket is still pending an action to move towards the next phase in the ticketing workflow.</p>	<p>The time lapse between SR's in the system occurred because we did not have approval of the requestor's supervisor for the action that was requested.</p>	<p>Brian Downey – Sr. Manager - May 2021</p>	<p>Run report of all pending requests and contact approver to move the SR forward in the workflow. – Completed</p> <p>Notification alert to be sent weekly to the approver that an action is required.</p>