Audit of Department of Information and Technology Services' AT&T Datacomm LLC Contract Monitoring Process

February 4, 2021

Mark S. Swann, City Auditor

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City of Dallas

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Executive Summary

Objective and Scope

The objective of this audit was to determine if the AT&T Datacomm LLC managed services contract performance and billings to contract pricing terms were monitored and if contracting with a third party is efficient for this service. The scope of the audit was operations from October 1, 2018, to September 30, 2020.

What We Recommend

Management should consider:

- Short-term agreements (3-5 years).

- Assigning/parsing the contract into manageable components to managers or by function.

- Mapping procured services to organizational (operational) service needs.

- Alternate solutions to managing the telecommunication billing process.

- Modifying the Pinnacle application with variance parameters.

- Identifying key performance indicator(s)/service level agreement performance measure(s) for each managed service(s) and ensuring accountability.

Background

The AT&T Datacomm LLC managed services contract is administered by the Department of Information and Technology Services. The AT&T Datacomm LLC managed services contract was approved in 2012 for $63,444,708 and was increased to $147,165,423 through supplemental agreements and renewal options as of 2020.

The goal of a managed services contract is to allow the organization to grow and meet technology demands without sacrificing quality in operations while maintaining cost effective options. The final renewal option for the AT&T Datacomm LLC managed services contract was initiated in the first quarter of fiscal year 2021 and will expire November 2022.

What We Found

Over the course of the managed services contract's life, several changes to industry, internal management, and service needs contributed to:

- Inconsistent contract management for cost allocation and expenditure, contract service changes, and contract relevancy.

- Inability to verify accuracy of monthly invoice billings to contract terms.

- Ineffective validation of multiple performance measures.

Audit Results

As required by *City Council Resolution 88-3428,* departments will establish internal controls in accordance with the standards established by the Comptroller General of the United States pursuant to the *Federal Managers' Financial Integrity Act of 1982.* Administrative Directive 4-09, *Internal Control* prescribes the policy for the City to establish and maintain an internal control system. The audit observations listed are offered to assist management in fulfilling their internal control responsibilities.

Observation A: Contract Management

The processes used for contract management to ensure cost allocation and expenditure tracking, incorporation of contract changes to the billing process, and contract relevancy were not executed consistently. As a result, the City of Dallas cannot ensure service delivery to the employees and sustain operations effectively.

Cost Allocation and Expenditure

Per Administrative Directive 4-05, *Contracting Policy,* the AT&T Datacomm LLC managed services contract is a master services agreement, which means that funds are projected for use, and all subsequent revisions in the scope of work or funds are supported with supplemental agreements. Over the course of the managed services contract, this cost allocation and expenditure trail, while approved by executive levels, could not be traced for verification. For example,

- *Supplemental Agreement 19* states that work will be paid using funds available from *Supplemental Agreement 13*. *Supplemental Agreement 13*, however, shows that there are no available funds and used the funds for *Supplemental Agreement 21.* Additionally, the cost of *Supplemental Agreements 26* and *28* is added to *Supplemental Agreement 19*, even though the two supplemental agreements were approved after *Supplemental Agreement 19*.

- *Supplemental Agreement 30* ($1,035,242), *Supplemental Agreement 29* ($233,049), *Supplemental Agreement 26* ($241,332), and *Supplemental Agreement 25* ($671,865) payment provision sections did not indicate that funds were available.

- *Supplemental Agreements 20* and *21* allocations of funds did not match the proposed costs in the statement of work.

Efforts to reconcile the initial managed services contract and the supplemental agreements were ineffective partially due to the contract's longevity. The City of Dallas paid a one-time "*true-up*" cost to AT&T Datacomm LLC, and there is no supporting internal documentation to concur or verify AT&T Datacomm LLC's representation of additional costs.

Service Charges Not Mapped to Billing Process

The managed services contract activities were amended several times, which impacted the services' billing/invoicing. The invoice service charges and associated costs could not be validated without the

Pinnacle billing application converting the invoice data files to a reviewable format. Monthly recurring charges were updated for network maintenance, licenses, hosting services, co-location, firewall configuration and management, Pinnacle billing application and maintenance, voice and data, and mobility solutions. These monthly charges could not be verified in the actual invoices.

- In *Supplemental Agreement 3,* the City of Dallas purchased *"Wireless Products and Services"* and agreed to maintain a minimum annual commitment of service revenues in the amount of $400,000. The minimum commitment was not verifiable in the monthly invoices.

- AT&T Datacomm LLC agreed to provide an equipment credit of $100 based on certain conditions as well as refunds if service level agreement metrics are not met as described in Exhibit 5, *Service Level Agreement.* The credits and refunds, if provided, could not be verified.
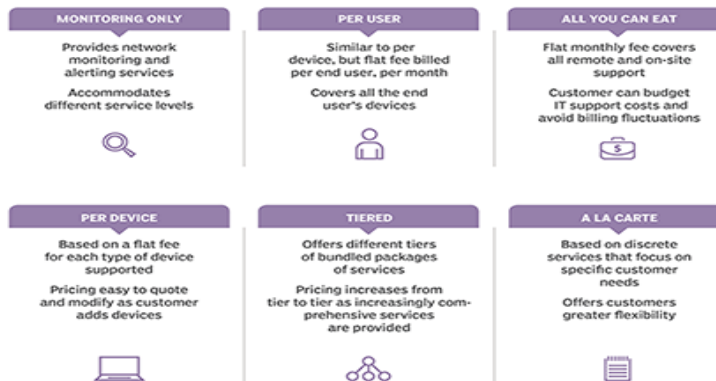
Relevancy

The AT&T Datacomm LLC managed services contract approved in 2012 is not reflective of actual service needs. The AT&T Datacomm LLC managed services contract was amended with over 40 supplemental agreements. For example, the 2012 managed services contract includes security monitoring techniques that may not be sufficient to monitor today's security threats.

Additionally, Exhibit 4, *Pricing Agreement* indicates that a flat fee was applied. This is not consistent with the industry pricing models for managed services as managed services combine fee structures for voice, data, infrastructure, cloud computing, and security management. Also, with the changes to the pricing agreement at least seven times over the managed services contract, it is not clear the initial pricing is still appropriate. Refer to managed services pricing models shown in Exhibit 1.

Exhibit 1:

6 managed services pricing models

MONITORING ONLY	PER USER	ALL YOU CAN EAT
Provides network monitoring and alerting services	Similar to per device, but flat fee billed per end user, per month	Flat monthly fee covers all remote and on-site support
Accommodates different service levels	Covers all the end user's devices	Customer can budget IT support costs and avoid billing fluctuations

PER DEVICE	TIERED	A LA CARTE
Based on a flat fee for each type of device supported	Offers different tiers of bundled packages of services	Based on discrete services that focus on specific customer needs
Pricing easy to quote and modify as customer adds devices	Pricing increases from tier to tier as increasingly comprehensive services are provided	Offers customers greater flexibility

Source: www.techtarget.com

A managed services contract offers significant flexibility to obtain services as needed, which means that the services are spread across several functions within the Department of Information and Technology Services (e.g. server administration, security monitoring, application upgrades, asset management). Therefore, the Department of Information and Technology Services' different functions might not be aware of the services procured and assigned responsibility for ongoing management.

Criteria

❖ AT&T Datacomm LLC managed services contract

❖ Standards for Internal Control in the Federal Government - *Principle 10 - Control Activities*

❖ Administrative Directive 4-05, Contracting Policy, *Sections 15.4.1* and *13.1.1*

Assessed Risk Rating:

High

We recommend the **Director of Information and Technology Services:**

A.1: Consider short-term agreements (3-5 years) with a specific focus for each service.

A.2: Assign managers responsibility to monitor one or more contracted service.

A.3: Map procured services to organizational (operational) service needs to validate that only needed services are obtained.

Observation B: Contract Billing

Accuracy of monthly invoice billings to contract terms could not be verified completely and consistently. If the City of Dallas cannot verify invoice billing to contract pricing and terms, then the City of Dallas: (1) may not be able to establish that the vendor has maintained the integrity of the contract; and (2) cannot know if excessive charges, discounts, and refunds were managed correctly.

A sample of 60 separate billing items was selected from different invoices, and these individual items could not be traced directly to the contract and price catalog. Specifically, the following was noted:

- The length of time to validate individual line items' accuracy is not practical or sustainable for the long-term. To validate the sample for the audit, it took approximately two months for a dedicated resource.

- Translated invoice data cannot be used to verify the contract pricing amount. The Pinnacle billing application converts the raw invoice details to manageable data and identifies the Universal Servicing Ordering Code. Even though invoice line items could be traced back to the Universal Servicing Ordering Code, the Universal Servicing Ordering Codes are not part of the managed services contract. Hence the invoice details could not be verified to contract pricing amounts.

Management does monitor bill variance by relying on the Pinnacle billing application's configured invoice variance parameters. However, the invoice variance parameters have not been modified since 2012, indicating that parameters may not consider changes in contract terms, services, and pricing. The Pinnacle billing application was implemented and is managed by AT&T Datacomm LLC.

A contributing factor to the invoice validation process is that it is complex, involves multiple steps, and requires telecommunication knowledge and expertise to confirm billing accuracy.

Criteria

- ❖ Administrative Directive 4-05 Contracting Policy, *Section 15.4.1*

- ❖ Standards for Internal Control in the Federal Government - *Principle 10 - Control Activities*

Assessed Risk Rating:

High

We recommend the **Director of Information and Technology Services:**

B.1: Evaluate alternate solutions to validate the accuracy of the telecommunication billing process**.**

B.2: Modify Pinnacle billing application with variance parameters to assist in the continued monitoring of monthly invoices.

Observation C: Contract Performance

The AT&T Datacomm LLC managed services contract's multiple performance measures could not be verified for consistent execution. Therefore, the City of Dallas does not have a platform to hold AT&T Datacomm LLC accountable for noncompliance with contract performance.

The AT&T Datacomm LLC managed services contract identifies several weekly, monthly, and quarterly reports as performance measures. A reconciliation of the reports identified in Exhibit 3, *Reports* and Exhibit 5, *Service Level Agreement* was completed, and the following was identified.

Operational Reports

Exhibit 3, *Specifications and Scope of Work* addresses several operational activities for which managed services reports are expected. These operational activities services are Voice and Data Network Assessment Management Specifications; Maintenance Specifications; Install / Move / Add / Change Specifications; Management and Monitoring Specifications; Install Specifications; Security Specifications; Customer Billing System Specifications; and Help Desk Specifications. The associated managed services reports and their metrics that were defined in Exhibit 3, *Reports* were not verifiable for:

- Managed Firewall Service reports for firewall denies and accepts, group access summaries, and intrusion detection events

- Managed Network Intrusion Detection/Preventions Service reports

- Security Event and Threat Analysis monthly reports for critical alerts, Top 10 Alerts and Attacking Internet Protocols, and Device Alarms

- Quarterly metrics reports such as Critical Alert Count, Top 10 Alerts, Case Counts, and Internet Protect Alerts

- Admin alert reports for email, Virtual Private Network servers, and data leak detection

- Weekly Threat Management reports

Service Level Agreement

Exhibit 5*, Service Level Agreement* has specific metrics focused on network up/downtime, bandwidth, and availability of the network for the City of Dallas at multiple locations. Some examples of the metrics that were not verifiable are:

- Software maintenance

- Logging, tracking of tickets, and certain help desk activities

- 7x24x4hr response maintenance service level objective for voice and data service interruption

- F5 load balancer monitoring reports

- Microsoft Azure statistics and metrics

- Managed firewall and intrusion detection services

Compliance Reports

The managed services contract also stipulates annual Service Organization Control (SOC) Type II (formerly knowns as Statement of Auditing Standards (SAS) 70 Type II) and quarterly vulnerability scan reports will be provided. Neither document was available for the audit period.

The Information and Technology Services security team's primary mechanism to monitor the performance of the contract is dependent on AT&T Datacomm LLC's monthly self-reporting. Most of the monthly self-reporting by AT&T Datacomm LLC is focused on events that have already occurred and the security team is receiving post-event analysis. The Information and Technology Services security team acknowledges that the City of Dallas does not have the equipment and resources and is working towards a proactive approach.

Criteria:

- ❖ Administrative Directive 4-05, Contracting Policy, *Section 15.4.1*
- ❖ AT&T Datacomm LLC managed services contract:
  - o Exhibit 3, *Specifications and Scope of Work*
  - o Exhibit 3, *Reports*
  - o Exhibit 3, *Attachments 1 -7*
  - o Exhibit 5, *Service Level Agreement*
- ❖ Standards for Internal Control in the Federal Government - *Principle 10 - Control Activities*

Assessed Risk Rating:

High

We recommend the **Director of Information and Technology Services:**

C.1: Parse the contract into manageable components for each specific function in Information and Technology Services.

C.2: Identify key performance indicator(s)/service level agreement performance measure(s) for each managed service and ensure accountability through consistent reporting of these key performance indicator(s)/service level agreement performance measure(s).

Appendix A: Background and Methodology

Background

In December 2011, through Council Resolution 11-3343, the City of Dallas signed a contract with AT&T Datacomm LLC, which took effect on July 1, 2012, to end on November 30, 2018, with two (2) twenty-four-month renewal options. The procurement was completed under a competitive sealed proposal (RFCSP BZ1125) for managed voice and data network services. AT&T Datacomm LLC was awarded the contract as the most advantageous based on price and other evaluation factors. The City of Dallas has been operating under managed services agreements with AT&T Datacomm LLC since 2004.

The AT&T Datacomm LLC managed services contract was approved for $63,444,708 and was increased to $147,165,423 through the supplemental agreements and renewal options. The annual average costs based on the original contract amount for seven years was $9 million. Under the most recent renewal the average cost per year is $17 million.

The AT&T Datacomm LLC contract management is the responsibility of the Department of Information and Technology Services. A managed services contract is a combination of technology services that includes limited basic services and allows a business to procure other information technology services from a third party. The goal of a managed services contract is to *"allow the organization to grow and meet technology demands without sacrificing quality in operations while maintaining cost effective options."* See Exhibit 2 for a high-level view of different types of services procured through a managed services contract.

Exhibit 2:

Source: www.asoninc.com

The AT&T Datacomm LLC managed services contract includes two components: basic services and managed services. Over the course of the decade, the distinction between these services has evolved as the City of Dallas' information technology needs outpaced the base contract's initial intent as there was a significant increase of managed services. Some of the services obtained from AT&T Datacomm LLC are described in Exhibit 3 below. The AT&T Datacomm LLC contract will expire at the end of 2022.

Exhibit 3:

Table 1 – Service Description

Services	Description
Asset Management	Relates to asset tracking, selection, software license, and ongoing management for telephony services, existing and new software, and network managed devices.
Maintenance	Preventive (inspection, tuning) and remedial (correct any malfunction) services for devices.
Network Monitoring	24-hour monitoring of the network to prevent latency, packet loss, performance, availability for managed devices and telephony services. It also includes firewall configuration.
Security Event and Threat Analysis (SETA)	Data specific services combine data from at least three different sources in the City to develop an *Executive Threat* report. Reports include metrics, alerts, intrusion detection with critical event notification, and quarterly network perimeter scan (primarily of ports).
Install / Move / Add / Change (IMAC)	Activities such as recording, logging, communicating ongoing work through formal change management processes.
Voice and Data Customer Billing System	Track, invoice, and report on all services, inventory management, business continuity, data downloads, interface with AMS, user security levels, and annual support housed by the vendor.
Help Desk	Standard help desk activities with end-user surveys.
Monthly Recurring Charges (MRC)	Voice and data, help desk, contact center, and on-site engineering support.
Installation	One-time activities through a change management process.

Source: AT&T Datacomm LLC managed services contract

Methodology

The audit methodology included: (1) interviewing personnel from Information and Technology Services, (2) reviewing policies and procedures, applicable Administrative Directives, and best practices; and (3) performing various analyses, including benchmarking invoice analysis.

This performance audit was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based upon our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Major Contributors to the Report

Jamie Renteria – Auditor
Bob Smith, CPA, ISA – In-Charge Auditor
Mamatha Sparks, CISA, CRISC, CIA, ISA – Audit Manager

Appendix B: Management's Response

Memorandum

CITY OF DALLAS

DATE: February 1, 2021

TO: Mark S. Swann, City Auditor

SUBJECT: Response to Audit of Department of Information and Technology Services' AT&T Datacomm LLC Contract Monitoring Process
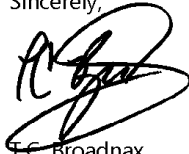
This letter acknowledges the City Manager's Office received the *Audit of Department of Information and Technology Services' AT&T Datacomm LLC Contract Monitoring Process* and submitted responses to the recommendations in consultation with the Department of Information and Technology Services.

City management recognizes the importance of efficiently monitoring our contracts to ensure the City and residents receive value for their dollar and acknowledges there are opportunities to improve the monitoring of the ATT Datacomm LLC contract.

To ensure consistent and effective contract monitoring across the City, the City developed and launched the Dallas Contracting Officer Representatives (D-COR) training program last year and has invested in more robust contract monitoring tools. The Department of Information and Technology Services has already committed several employees to the training, with 2 employees having already completed level 2 training.

Going forward we will continue to strengthen our contract monitoring process and implement the recommendations offered by the City Auditor.

Sincerely,

T.C. Broadnax
City Manager

C: Kimberly Bizor Tolbert, Chief of Staff
   M. Elizabeth Reich, Chief Financial Officer
   William Zielinski, Director, Department of Information and Technology Services

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Empathy | Ethics | Excellence | Equity

Assessed Risk Rating	Recommendation	Concurrence and Action Plan		Implementation Date	Follow-Up/ Maturity Date
High	We recommend the **Director of Information and Technology Services:**				
	A.1: Consider short-term agreements (3-5 years) with a specific focus for each service.	**Agree:**	ITS Management shall consider varied term agreements when procuring managed services.	Immediately	3/31/2023
	A.2: Assign managers responsibility to monitor one or more contracted service.	**Agree:**	ITS Management shall assign a manager specific to the portion of the contract based upon the division and function managed by the manager.	06/30/2021	6/30/2022
	A.3: Map procured services to organizational (operational) service needs to validate that only needed services are obtained.	**Agree:**	ITS Management shall review and map all services in the contract to functional areas, as well as determine if any unnecessary services should be removed from the contract.	09/30/2021	6/30/2022
	B.1: Evaluate alternate solutions to validate the accuracy of the telecommunication billing process.	**Agree:**	ITS Management recognizes the importance of maintaining a competitive approach when procuring services from vendors. ITS will review alternate solutions including solutions that can support the current Pinnacle platform, to validate accuracy.	9/30/2021	6/30/2022
	B.2: Modify Pinnacle billing application with variance parameters to assist in the continued monitoring of monthly invoices.	**Agree:**	ITS Management shall implement a formal process to review the variables on an annual basis to validate the variances to meet the current billing parameters and ensure accuracy of invoices.	9/30/2021	6/30/2022
	C.1: Parse the contract into manageable components for each specific function in Information and Technology Services.	**Agree:**	ITS Management shall parse the contract into logical components to be managed separately based upon the division area and function.	9/30/2021	6/30/2022

Assessed Risk Rating	Recommendation	Concurrence and Action Plan		Implementation Date	Follow-Up/ Maturity Date
	C.2: Identify key performance indicator(s)/service level agreement performance measure(s) for each managed service and ensure accountability through consistent reporting of these key performance indicator(s)/service level agreement performance measure(s).	**Agree:**	Each manager assigned a functional portion of the contract shall develop key performance indicators. These metrics shall be based upon the negotiated service level agreement to track metrics related to the effectiveness of the vendors performed services.	09/30/2021	6/30/2022